

August 7, 2015
2387-351-04-11

ARCELORMITTAL BURNS HARBOR LLC

PROGRESS REPORT AND TERMINATION REQUEST – CORRECTIVE MEASURES FOR DIESEL FUEL RELEASE

Locomotive and Mobile Equipment Shop

250 WEST US HIGHWAY 12
BURNS HARBOR, INDIANA 46304-9745

PREPARED BY



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1 INTRODUCTION

1.1 General

Weaver Consultants Group, LLC (WCG) has completed this report as described in WCG Budgetary Quote M90405-Q (Rev. 1), dated January 13, 2015, and as authorized by ArcelorMittal Steel USA (ArcelorMittal) Purchase Order No. B445311 (Rev. 001).

1.2 Purpose and Objective

The following report is provided to describe a subsurface release of diesel fuel discovered in 2007 and subsequent corrective measures undertaken by ArcelorMittal Burns Harbor LLC (ArcelorMittal) just north of the Locomotive and Mobile Equipment Shop. This progress report is expanded from its usual format to respond to the Environmental Protection Agency's (EPA's) October 25, 2010 request for additional information regarding conformance with soil, free product recovery, and groundwater remediation requirements for petroleum releases under the Indiana Department of Environmental Management's Risk Integrated System of Closure (RISC). As explained herein, corrective measures have now been completed to the extent practicable and risk to human health or the environment posed by residual petroleum hydrocarbons is negligible. This report therefore concludes with a request for approval to terminate the corrective measures currently on-going since 2008.

1.3 Report Organization

Section 1.0 provides general information and describes the purpose and objective for this Report. Background and historical information are provided in **Section 2.0**. The physical setting, hydrogeological conditions, and conceptual model of the site are discussed in **Section 3.0**. On-going diesel fuel recovery operations, monitoring, and results obtained are described in **Section 4.0**. Conclusions and a recommendation to terminate the on-going corrective measure are provided in **Section 5.0**.

2 BACKGROUND INFORMATION

2.1 Summary of Release and Corrective Measures

A subsurface release of diesel fuel was discovered north of the Locomotive and Mobile Equipment Shop during a routine construction project in December 2007. The release was encountered during excavation for a foundation pier for a new locomotive fuel dispensing system. A likely source of the release was subsequently found to be the underground pipe that formerly conveyed the diesel fuel from the above ground storage tank (AST) to the former locomotive fueling rack at the locations shown on **Figure 1**.

Immediate responses mounted by ArcelorMittal included the use of a vacuum truck to recover liquid diesel fuel and water found perched in shallow subsurface fill soil. Follow-up responses included the excavation and off-site disposal of approximately 3,100 cubic yards of diesel fuel-impacted soil and recovery of liquid diesel fuel using a vacuum truck beginning on December 5, 2007. The volume of diesel fuel vacuumed directly from the excavation was not measured or tallied, but is estimated by WCG to have comprised several thousand gallons based on our visual observations of the effort. When the excavation was concluded April 8, 2008, soil samples indicated that the sidewall banks were remediated to Indiana Department of Environmental Management (IDEM) industrial default closure levels. The occurrence of groundwater at approximately 8 to 10 ft below ground surface precluded the removal of deeper soils. By May 6, 2008, the excavation was backfilled and replacement of the tracks was substantially complete. The foregoing response actions are described in the following report: Corrective Action Completion Report for Diesel Fuel-Impacted Soil, July 31, 2008, Weaver Boos Consultants, LLC, South Bend, Indiana.

As the soil remediation was completed in early 2008, ArcelorMittal was aware that free product remained along the surface of the water table, and therefore retained WCG to design, install, and operate a free product recovery system utilizing vacuum enhanced in-well skimming technology. This system was installed to remediate free product from the aquifer soils at depths below the groundwater table, consistent with IDEM policies for remediation and risk-based site closure. The free product recovery system was

completed and placed into operation on March 18, 2009 as described in the following report: Progress Report, Diesel Fuel Free Product Recovery, Locomotive and Mobile Equipment Shop, dated August 4, 2009.

3 CONCEPTUAL MODEL

The site of the diesel fuel release is located in the west-central portion of the approximately 3,300-acre integrated steel-making facility as shown on **Figure 1**. Land usage in the immediate vicinity of the release includes several railroad tracks providing access to the Locomotive and Mobile Equipment Repair Shop and is exclusively industrial. The facility was originally constructed by the Bethlehem Steel Company beginning in 1962. Prior to 1962 the facility was undeveloped except for the mining of sand. An institutional control consisting of a deed restriction recorded by ArcelorMittal (or predecessor) prohibits current and future use of groundwater for potable purposes. This control was established as part of the facility's RCRA Corrective Action process to provide for the use of industrial closure or screening levels.

The ArcelorMittal facility is located in an area designated as the Northern Moraine and Lake Region physiographic province, which formed as the last continental glaciation came to a close. The entire region is underlain by thick unconsolidated sediments deposited under glacial and coastal environments. Specifically, the facility is situated within the Calumet lacustrine plain physiographic subdivision. The Calumet lacustrine plain evolved within the bed of glacial Lake Chicago as it advanced and retreated during the last 14,500 years. During this time sediment was initially supplied by littoral transport from the eastern shore of the Lake, and later, from both sides of the Lake.

The ground surface elevation within most of the facility is approximately 614 feet above mean sea level (msl). The bedrock surface subcrops beneath the facility at an elevation of approximately 450 feet, indicating that the unconsolidated soils are about 160 feet thick. Historical subsurface investigations in connection with the construction of the ArcelorMittal facility have included hundreds of soil borings. A generalized unconsolidated profile may be inferred from these borings as follows:

Generalized Subsurface Profile

Unconsolidated Stratum	Approximate Top Elevation (feet msl)	Approximate Bottom Elevation (feet msl) or Thickness
Fine Sand	614	505 to 550
Organic Silt	580 to 590	Approximately 1 to 5 ft thick
Silty Clay	505 to 550	Not reported

The principal subsurface soil type is fine to medium textured sand laid down by wind and water along the former shoreline of Lake Michigan. The sand is permeable to fluid flow and exhibits a typical saturated hydraulic conductivity of about 2.5×10^{-2} cm/s as determined by several pumping tests and temporary dewatering for construction of facility basements and other deeper structures. The water table fluctuates and is usually found at an elevation of about 600 to 606 feet msl.

Subsurface conditions encountered while drilling the piezometers (FP-1, -3, and FP-3) and remediation wells (RW-1, -2, -3, and RW-4) located as shown on **Figure 2** were consistent with the professional literature and prior soil borings advanced at the facility. The well and boring logs provided in **Appendix A** consistently show fine to medium sand to the terminus of each well that extends to 20 ft below ground surface (bgs). Monitoring and Remediation Well Information is also summarized on **Table 1**.

Groundwater is recharged by precipitation and infiltration through the generally level surface of the overall facility property. Groundwater flows typically to the nearest surface water features that include Lake Michigan and the Burns International Harbor to the north and west. Groundwater beneath the east-central parts of the facility typically flows towards the stormwater/non-contact cooling water discharge channel draining that part of the property.

Site specific groundwater level elevations measured on May 29, 2015 are summarized on **Table 2** and show that the depth to groundwater is approximately 11 ft bgs, corresponding to an elevation of approximately 602 ft. The level of Lake Michigan measured at the east arm of the Burns International Harbor was 580.50 ft. The groundwater level elevations are plotted to the site as shown on **Figure 3**. The groundwater flow direction is west-northwesterly, towards the surface water of the

Burns International Harbor as expected based on the site hydrogeology and conceptual model. The horizontal flow gradient for the pathline represented by the arrow is a gentle 0.003 ft/ft. Although the soils are permeable, flow rates beneath the site are estimated at less than one foot per day, providing little impetus for migration.

Under conditions specific to the site, the diesel fuel free product constitutes a light non-aqueous phase liquid (LNAPL) occurring mainly as residual product bound to the soil matrix of the aquifer and to a lesser extent as free product that is mobile and thus recoverable. Risk posed by the diesel fuel included the horizontal spreading of the mobile free product, phase partitioning to the underlying groundwater and overlying unsaturated soil pore vapor, and potential migration through the groundwater and soil pore vapor. The residual product contained in unsaturated subsurface soil was successfully removed during the initial response action between December 2007 and April 2008, which significantly reduced the quantity of diesel fuel in the subsurface. Subsequent response actions, consisting of vacuum enhanced skimming, further mitigated the remaining potential risk by removing approximately 1,409 gallons of diesel fuel while continuously drawing unsaturated soil vapor to the four recovery wells since March 2009. Diesel fuel was initially recovered at rates as high as 100 gallons per month and have declined significantly since corrective measures began. Over the last year, the average rate of recovery has declined to a de minimis level of just two gallons per month.

Additional investigation of shallow groundwater quality immediately beneath the site was undertaken during 2Q 2015. As further explained herein, petroleum hydrocarbon impacts to the underlying groundwater are at concentrations well below IDEM's commercial/industrial default closure levels applicable for the property. Additionally, the measured groundwater concentrations are well below IDEM's more recently published screening levels for vapor migration and vapor intrusion to occupied structures. Risks posed by migration through groundwater or soil pore vapor are therefore considered negligible. Practicably recoverable free product is now exhausted. This mitigates the potential risk of migration of the formerly mobile free product. The remainder of the residual diesel fuel is immobile and is not significantly affecting groundwater quality. Unrecoverable residual diesel fuel will naturally biodegrade over time. No significant additional environmental benefit is expected to accrue from continued operation of the remediation system.

4 CORRECTIVE MEASURES AND RESULTS

4.1 Operations and Maintenance

Operation of the remediation system has been nearly continuous since it was placed into service in March 2009. WCG operated, monitored, and maintained the system during weekly site visits consistent with the standard operating procedure (SOP) provided with the first written progress report. Performance is measured by gauging the accumulation tank and by checking the apparent thickness of diesel fuel free product in the recovery wells. Operating parameters requiring adjustment include setting the vacuum level (12 to 16 inches of water) and setting the pump intake levels to match fluctuating groundwater levels in the wells. Maintenance items included checking and replacement of the vapor extraction system's inline filter as needed, checking and replacement of the air compressor intake filter as needed, regular replacement of the air compressor lubricating oil, and clearing the vapor extraction collection lines of condensate each week.

Weekly operations and maintenance report forms completed between April 3 and June 25, 2015 are provided in **Appendix B**. Skimmer pumps RW-3 and RW-4 were inactive during 1Q 2015 because of mechanical failure. Both skimmer pumps were removed from their respective wells and shipped to the manufacturer for repair. WCG subsequently reinstalled the pumps and reactivated the remediation system to full operation on April 10, 2015.

4.2 Diesel Fuel Recovery

The remediation system has thus far recovered approximately 1,409 gallons of diesel fuel and approximately 1,893 gallons of ancillary groundwater since remediation began in early 2009. The quantities of diesel fuel and water collected by the remediation system are summarized on **Table 3**. For 2Q 2015, the final volume of fuel in the accumulation tank increased by 10 gallons from the final reading of 1Q 2015. These 10 gallons were recovered by May 22, which was shortly after the mechanically reconditioned skimmer pumps were reinstalled in remediation wells RW-3 and RW-4. This indicates that the remediation system rapidly compensated for the inactivity of RW-

3 and RW-4 during 1Q 2015. It is therefore most appropriate to consider that the last 13 gallons recovered is representative of the recoverable quantity of diesel fuel that was available during the first six months of 2015.

Cumulative diesel fuel recovered is charted as shown on **Figure 4**. This chart shows relatively rapid and steady accumulation through 2009 when 598 gallons were recovered. After 2009, the accumulation of free product tapered. Noticeable up-ticks in accumulation of free product occurred in the spring/summer of 2010, 2011, and 2013. No similar uptick was observed during 2014 and none is evident thus far in 2015, indicating that practicably recoverable free product is now exhausted.

The calculated rate of diesel fuel recovery (gallons per day) is charted on **Figure 5**. Negative rates reflect either difficulty in accurately reading the water level in the accumulation tank by our operator who uses color-changing water-finding paste applied to a tape measure for this purpose, or possibly the cross-dissolution of water and oil between the separate liquid phases. Several peaks approaching 8 gallons per day are indicated since remediation began, but the average rate is usually much lower. During 1Q and 2Q 2015, the daily rate has averaged 0.069 gallons per day, which is only 2 gallons per month. This decline in recovery rate is due to the reduced transmissivity for mobile diesel fuel along the top of the water table resulting from the thinning of the diesel fuel-saturated thickness of the water table aquifer.

The apparent thickness of free product measured in recovery wells RW-1, RW-2, RW-3, and RW-4 is listed in **Table 4**. The thickness is described as "apparent" because it represents what is present in the well at the time of measurement and does not represent the thickness of mobile free product in the aquifer. The actual thickness in the aquifer formation is significantly less than the apparent thickness measured in a well. Additionally, the applied vacuum tends to increase the thickness of free product in a well, while the regular pumping of the recovery wells reduces its thickness. Time trends of apparent free product thickness are charted for the recovery wells as shown in **Figure 5**. The apparent thickness of free product measured during 1Q and 2Q 2015 remained at zero inches in RW-1 and RW-2. The apparent thickness of free product measured during 1Q and 2Q 2015 in RW-3 and RW-4 ticked up after the skimmer pumps were removed for service, but has since returned to its more typically one inch or less. This occurrence indicates the minimal accumulation of diesel fuel in these two wells while they were inactive between January 2 and April 10, 2015, and further demonstrates the now greatly reduced transmissivity value for diesel fuel free product.

4.3 Groundwater Sampling and Results

Groundwater samples were collected from piezometer FP-1 (MW-1) and the remediation wells RW-1, -2, -3, and RW-4 to assess the extent of dissolution of petroleum hydrocarbons from the residual diesel fuel to the aqueous phase of the underlying groundwater. The samples were collected on May 22, 2015 using dedicated disposable ¼-inch poly tubing inserted to the approximate center of each well screen, therefore bypassing the free product floating on top of the water column. The wells were gently purged using a peristaltic pump and standard flow-flow sampling techniques while field stability parameters (pH, SC, and temperature) were measured. Stability was indicated after purging typically 1.5 gallons as shown on the field sampling reports provided in **Appendix C**. Weaver Consultants Group has found that this sampling technique is usually able to provide representative samples of groundwater that include the dissolved, aqueous phase of petroleum-based contaminants while excluding the LNAPL phase that floats at the top of the water column.

Aliquots for volatile benzene, toluene, ethylbenzene, and xylene (BTEX) were containerized in 40 ml VOA vials preserved with HCl using the “soda straw” variation to minimize volatilization. This variation was implemented by stopping the pump, withdrawing the tube from the well, and reversing the pump at low speed to discharge the specimen into the VOA vial without passing it through the pump head. Aliquots for polycyclic aromatic hydrocarbons (PAHs) were then drawn through the pumphead and discharged to their respective amber glass containers in the usual manner.

The samples were then sealed, labelled, placed on ice, and documented using a chain-of-custody form and hand delivered to Microbac Laboratories, Inc. where they were analyzed for BTEX using Method 8260B and PAHs by Method 8270C. The resulting analytical report is provided in **Appendix C**.

Results obtained for the samples are summarized on **Table 5** and compared with IDEM’s RISC industrial default closure levels and IDEM’s RCG screening levels for vapor intrusion at industrial sites. The results indicate that BTEX and PAHs were either not detected, or if detected, the concentrations were well below their respective screening levels. These results are mapped to the site as shown on **Figure 7**. No impact to the groundwater immediately beneath the residual diesel fuel at concentrations above applicable screening levels is therefore indicated.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

With consideration for our observations, measurements, results obtained, and the relevant standards for assessing the effectiveness of corrective measures for petroleum release(s), WCG concludes the following consistent with prevailing professional principles and practice:

1. Immediate responses mounted by ArcelorMittal to the historical release of diesel fuel included the use of a vacuum truck to recover liquid diesel fuel and water found perched in shallow subsurface fill soil. Follow up responses included the excavation and off-site disposal of approximately 3,100 cubic yards of diesel fuel-impacted soil and recovery of additional liquid diesel fuel using a vacuum truck beginning on December 5, 2007. When the excavation was concluded April 8, 2008, soil samples indicated that the sidewall banks were remediated to industrial default closure levels.
2. The occurrence of groundwater at approximately 8 to 10 ft below ground surface precluded the removal of deeper soils exceeding industrial default closure levels at the base of the excavation, as did the need to restore two rail lines that were temporarily removed to facilitate the remediation. By May 6, 2008, the excavation was backfilled and replacement of the tracks was substantially complete.
3. Following the remediation of the accessible diesel fuel-impacted soil, active recovery of free product from atop the shallow water table began in March 2009 and continued through June 2015 as described herein. The remediation system has thus far recovered approximately 1,409 gallons of diesel fuel since remediation began on March 18, 2009. The measured recovery of diesel fuel thus far in 2015 is approximately 13 gallons. This indicates a de minimis recovery rate of 2 gallon per month for 1Q and 2Q 2015. This rate is equal to the 2 gallon per month termination criteria listed several times in U.S. EPA's 1996 Guide for

State Regulators: How to Effectively Recover Free Product at Leaking Underground Storage Tanks Sites (EPA 510-R-96-001).

4. The remediation system continues to operate as designed, but practicably recoverable free product is now exhausted.
5. Sampling and analysis of shallow groundwater immediately beneath the remaining residual diesel fuel indicates BTEX and PAHs were either not detected, or if detected, the concentrations were well below their respective screening levels for industrial land use. No significant migration to the underlying groundwater or overlying soil pore vapor is therefore indicated.

5.2 Recommendations

Corrective measures continuing since 2008 have successfully recovered the diesel fuel release to the extent practicable and risks posed to human health or the environment by remaining residual diesel fuel have been reduced to a negligible level as discussed herein. Therefore, Weaver Consultants Group recommends and requests that the remedial operation be terminated. Operations will continue as directed by ArcelorMittal pending approval of this request for termination.

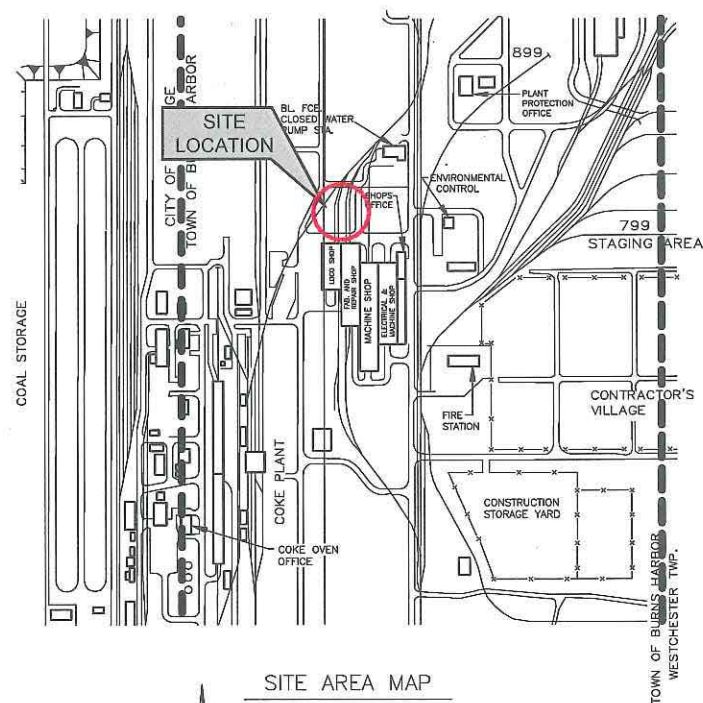
5.3 Qualifications and Limitations

Weaver Consultants Group prepared this Report using a defined scope of services considered appropriate and agreed upon by all parties on the date the service was authorized and in accordance with generally accepted practices in a manner consistent with that level of care exercised by other members of our profession in the same locality and practicing under similar circumstances. Our professional opinions are based upon our review of historical data and information, our visual observations of the subsurface conditions, and the results we obtained during remediation and monitoring. Conditions in areas not specifically sampled or analyzed may differ. Although the scope of work is believed by WCG to be appropriate to address the stated objectives, we note that no environmental assessment can completely eliminate uncertainty with respect to the presence, nature, concentration, or extent of contaminants of potential concern in soil or groundwater.

FIGURES

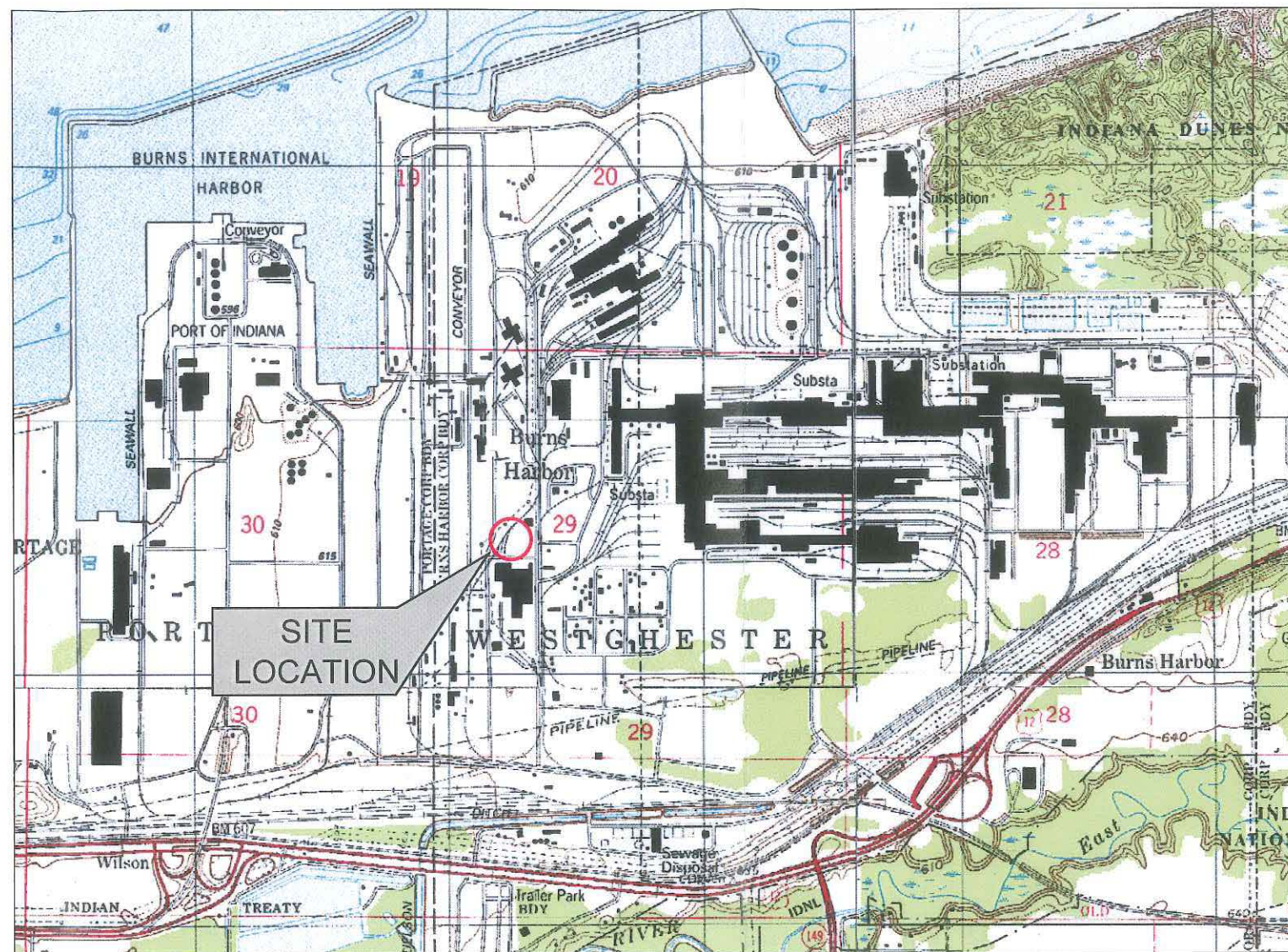


VICINITY MAP
NTS



SITE AREA MAP

SCALE
0 250' 500' 1000'



LOCATION MAP



SCALE
0 1000' 2000' 4000'

- ☒ DRAFT
- ☐ PERMIT APPLICATION
- ☐ APPROVED FOR CONSTRUCTION
- ☐ CLIENT APPROVAL BY: _____

DATE: 7/21/15
FILE: 2387351-04
CAD: SHEET1.DWG

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ArcelorMittal

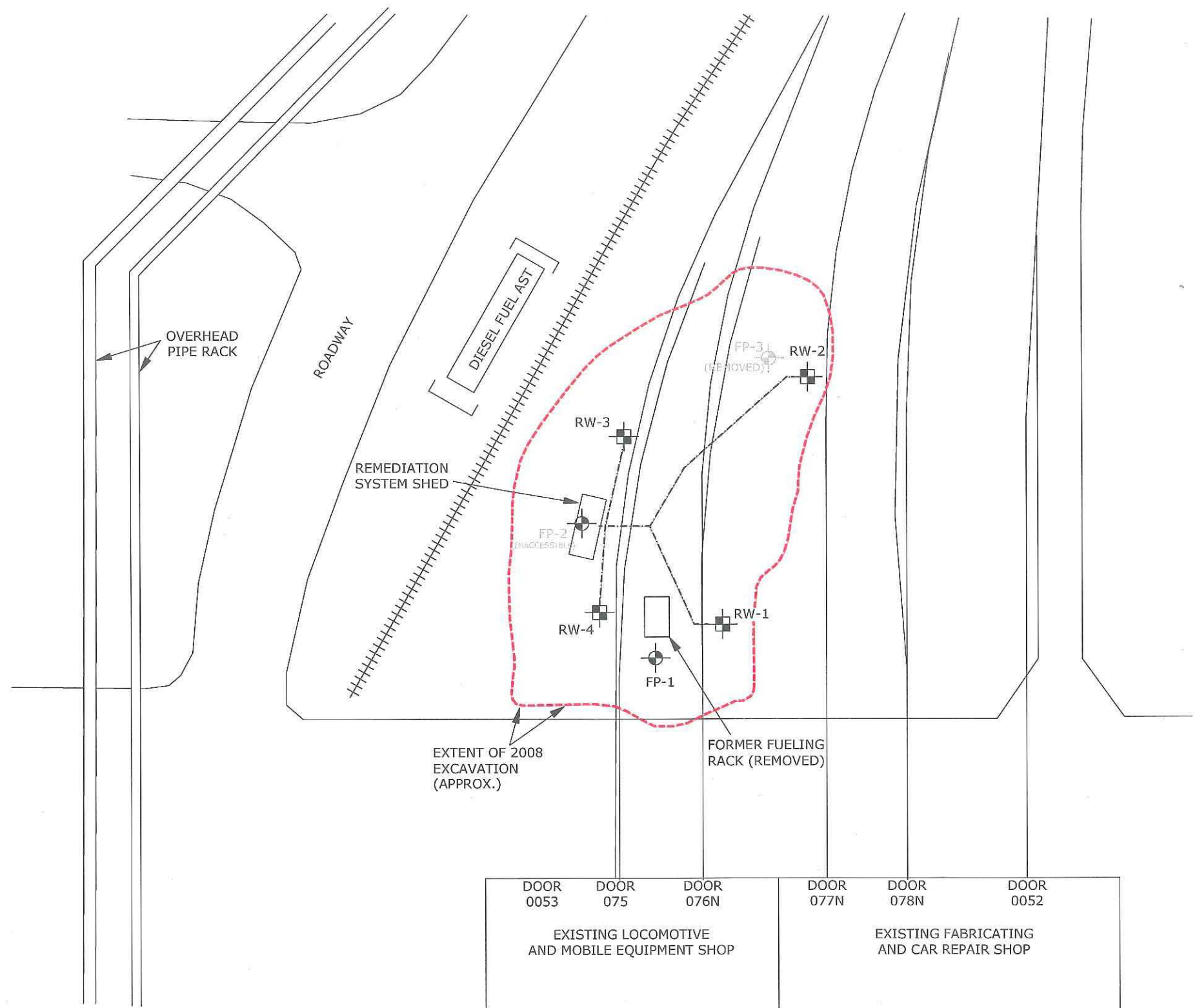
**Weaver
Consultants
Group**

SITE LOCATION MAP

DIESEL FUEL FREE PRODUCT REMEDIATION SYSTEM
NORTH OF LOCOMOTIVE & MOBILE EQUIPMENT SHOP
ARCELORMITTAL BURNS HARBOR, LLC
250 WEST U.S. HIGHWAY 12
BURNS HARBOR, INDIANA

CHICAGO, IL
NAPERVILLE, IL
SPRINGFIELD, IL
GRIFFITH, IN
SOUTH BEND, IN
DUBLIN, OH
ST. LOUIS, MO
FT. WORTH, TX
DENVER, CO

FIGURE 1

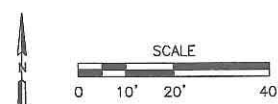


LEGEND:

- FREE PRODUCT RECOVERY WELL
- FREE PRODUCT PIEZOMETER
- EXCAVATION EXTENTS
- RAILROAD TRACK
- AIR SUPPLY AND PRODUCT DISCHARGE LINES BURIED 24 TO 36 INCHES

NOTES:

1. LAND SURFACE ELEVATION AROUND EXCAVATION IS APPROXIMATELY 614 FEET, MSL.
2. EXCAVATION FOR CORRECTIVE ACTION OF DIESEL FUEL IMPACTED SOIL EXTENDED TO A DEPTH OF APPROXIMATELY 7 TO 8 FEET BELOW GRADE (EL. 606 - 607).
3. EXCAVATION WAS BACKFILLED AND RAILROAD TRACKS REPLACED BY 5/7/08.



<input checked="" type="checkbox"/> AS-BUILT	
<input type="checkbox"/> PERMIT APPLICATION	
<input type="checkbox"/> APPROVED FOR CONSTRUCTION	
<input type="checkbox"/> CLIENT APPROVAL BY: _____	
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PREPARED FOR
ArcelorMittal

Weaver Consultants Group

SITE PLAN AND SYSTEM LAYOUT

DIESEL FUEL FREE PRODUCT REMEDIATION SYSTEM
NORTH OF LOCOMOTIVE & MOBILE EQUIPMENT SHOP
ARCELORMITTAL BURNS HARBOR, LLC
250 WEST U.S. HIGHWAY 12
BURNS HARBOR, INDIANA

CHICAGO, IL
NAPERVILLE, IL
SPRINGFIELD, IL

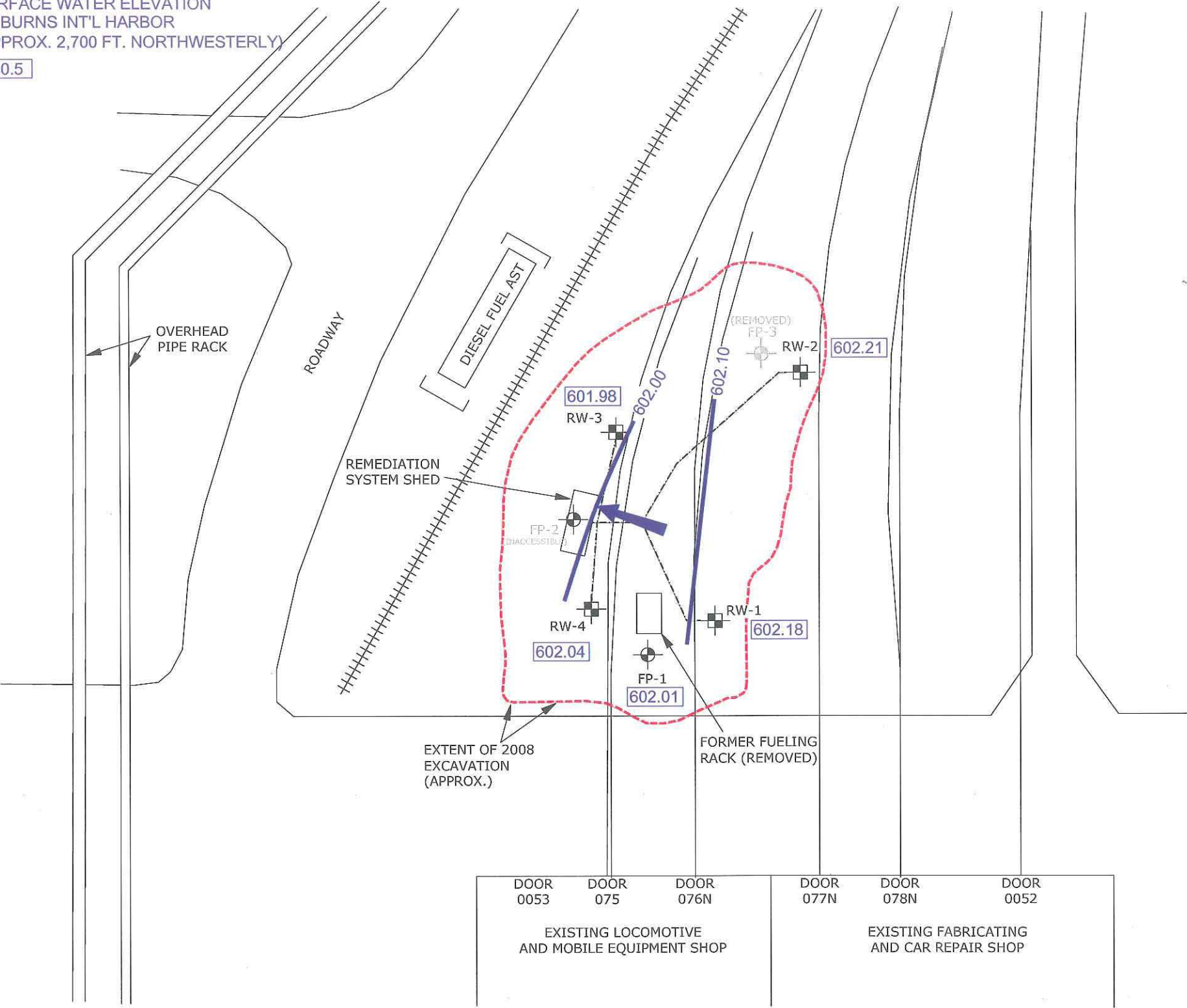
GRANGER, IN
DUBUQUE, OH

ST. LOUIS, MO
FT. WORTH, TX
DENVER, CO

FIGURE 2

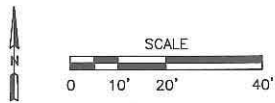
SURFACE WATER ELEVATION
AT BURNS INT'L HARBOR
(APPROX. 2,700 FT. NORTHWESTERLY)

580.5



- LEGEND:
- FREE PRODUCT RECOVERY WELL
 - FREE PRODUCT PIEZOMETER
 - EXCAVATION EXTENTS
 - RAILROAD TRACK
 - AIR SUPPLY AND PRODUCT DISCHARGE LINES BURIED 24 TO 36 INCHES
 - 602.52 OBSERVED GROUNDWATER LEVEL ELEVATION (FT.)
 - INFERRED POTENTIOMETRIC CONTOUR
 - GROUNDWATER FLOW DIRECTION

- NOTES:
1. LAND SURFACE ELEVATION AROUND EXCAVATION IS APPROXIMATELY 614 FEET, MSL.
 2. EXCAVATION FOR CORRECTIVE ACTION OF DIESEL FUEL IMPACTED SOIL EXTENDED TO A DEPTH OF APPROXIMATELY 7 TO 8 FEET BELOW GRADE (EL. 606 - 607).
 3. EXCAVATION WAS BACKFILLED AND RAILROAD TRACKS REPLACED BY 5/7/08.



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POTENTIOMETRIC MAP (5/29/2015)

DIESEL FUEL FREE PRODUCT REMEDIATION SYSTEM
NORTH OF LOCOMOTIVE & MOBILE EQUIPMENT SHOP
ARCELORMITTAL BURNS HARBOR, LLC
250 WEST U.S. HIGHWAY 12
BURNS HARBOR, INDIANA

CHICAGO, IL
NAPERVILLE, IL
SPRINGFIELD, IL

GRANGER, IN
DUBUQUE, OH

ST. LOUIS, MO
FT. WORTH, TX
DENVER, CO

FIGURE 3

FIGURE 4
Cumulative Free Product Recovered
Locomotive and Mobile Equipment Shop

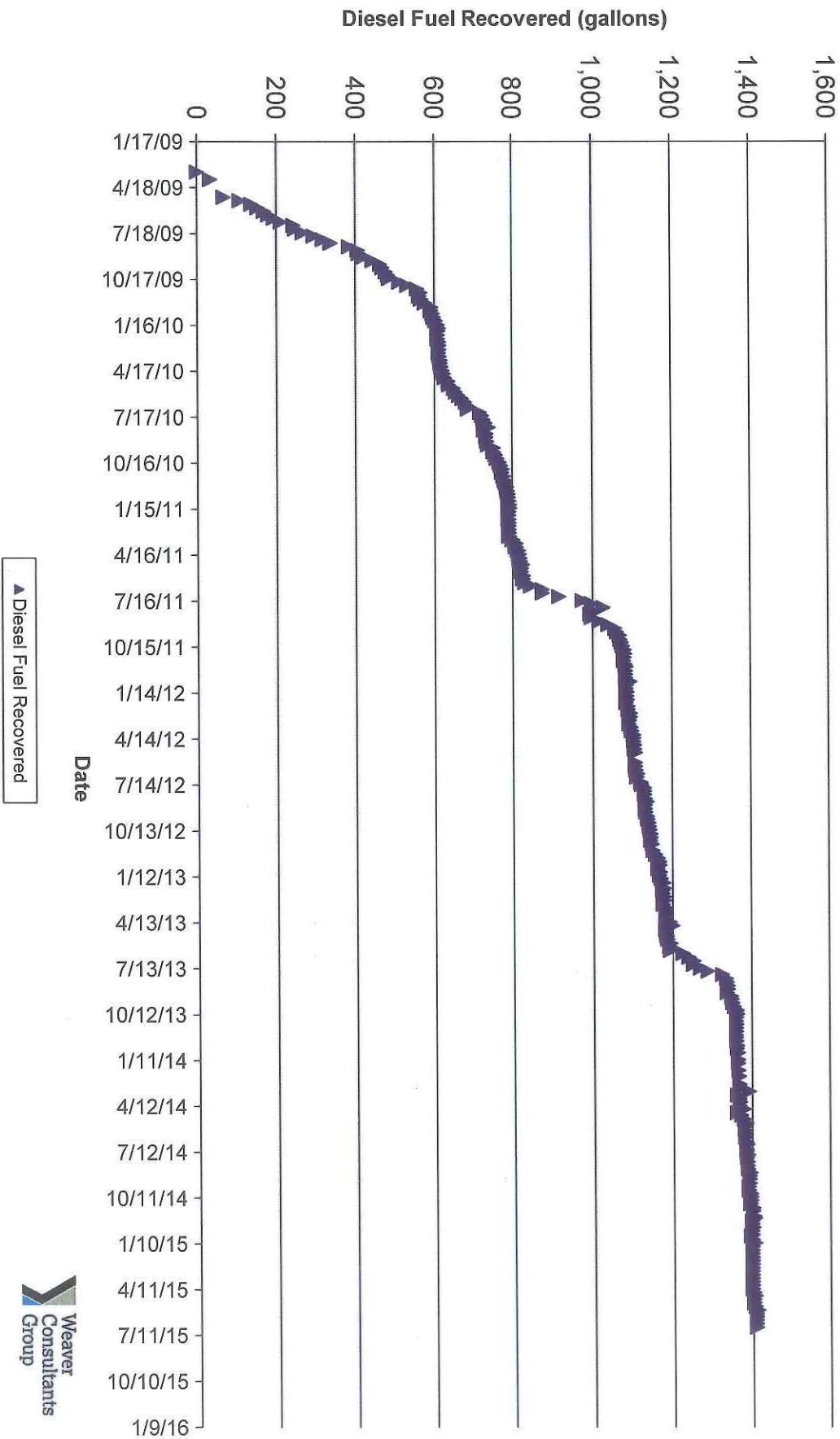


FIGURE 5
Rate of Diesel Fuel Recovery (gallons per day)
Locomotive and Mobile Equipment Shop

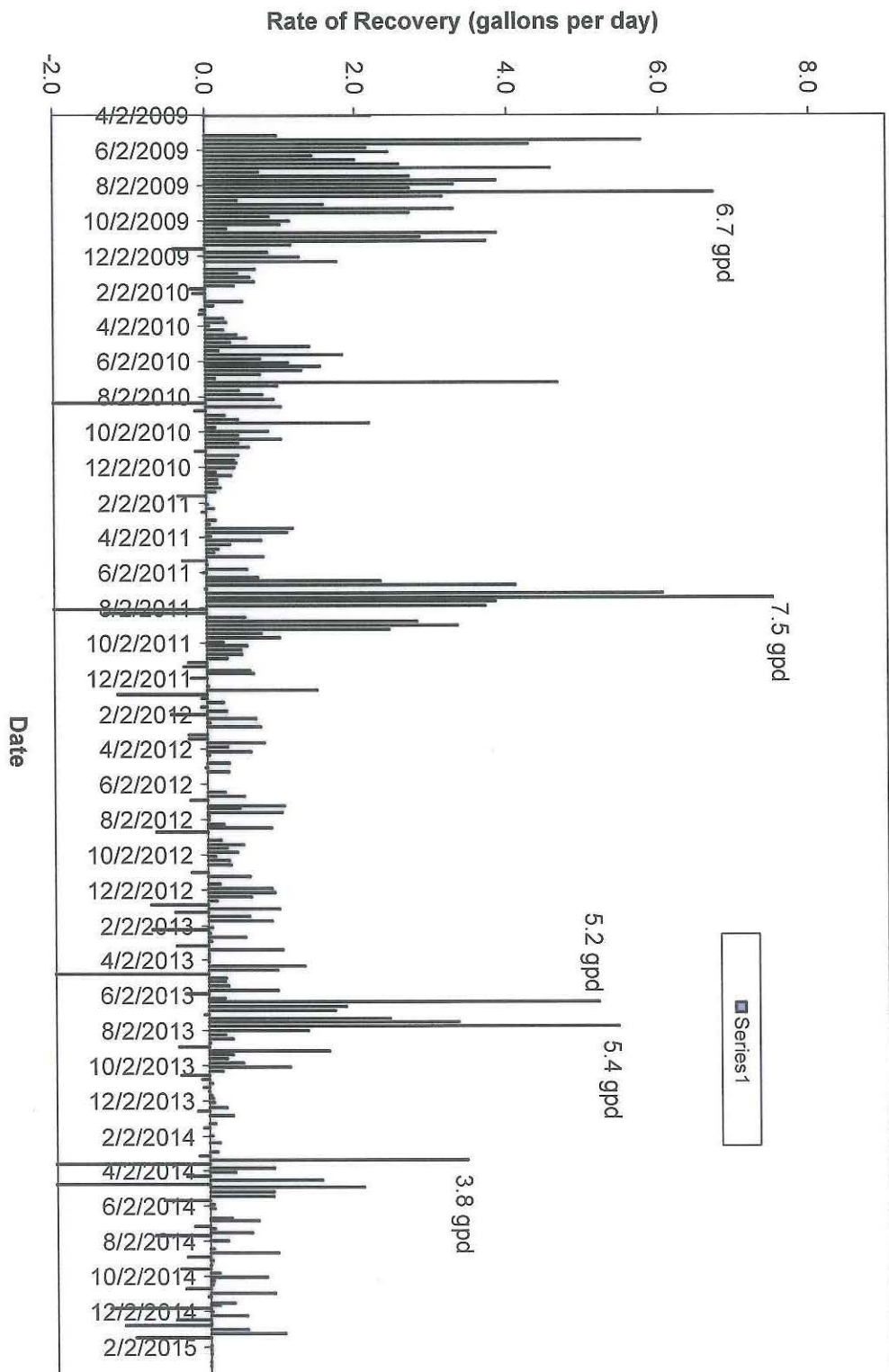
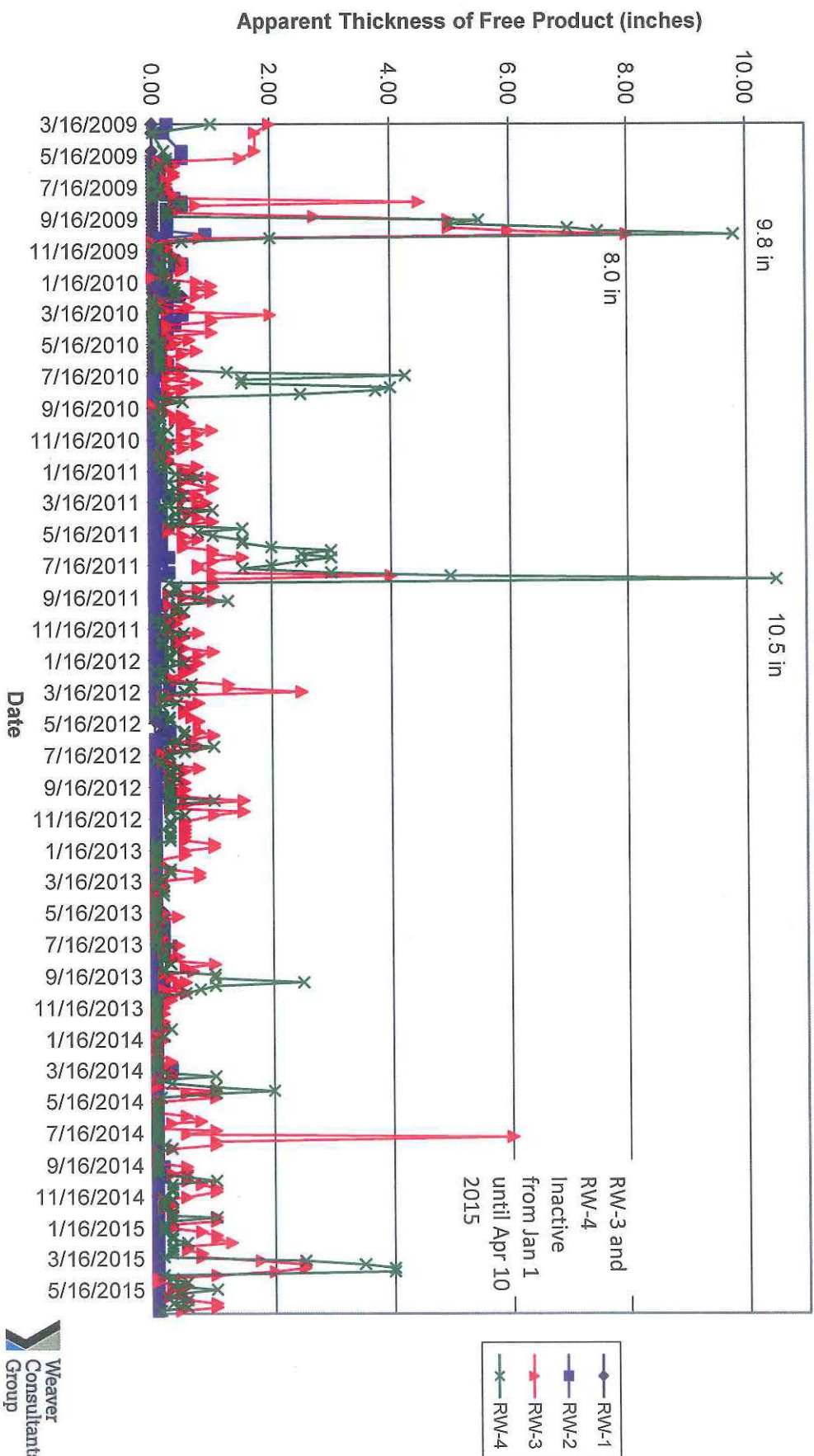


FIGURE 6
Apparent Thickness of Free Product in Wells
Locomotive and Mobile Equipment Shop



RW-3	Units	5/22/2015
Benzene	ug/L	<5.0
Ethylbenzene	ug/L	39
m,p-Xylene	ug/L	55
o-xylene	ug/L	150
Total Xylenes	ug/L	210
Acenaphthene	ug/L	2.0
Acenaphthylene	ug/L	<0.52
Anthracene	ug/L	<0.52
Fluorene	ug/L	2.8
Naphthalene	ug/L	16
Phenanthrene	ug/L	3.3
Pyrene	ug/L	0.75






RW-2	Units	5/22/2015
Benzene	ug/L	<5.0
Ethylbenzene	ug/L	<5.0
m,p-Xylene	ug/L	<5.0
o-xylene	ug/L	<5.0
Total Xylenes	ug/L	<5.0
Acenaphthene	ug/L	<0.52
Acenaphthylene	ug/L	<0.52
Anthracene	ug/L	<0.52
Fluorene	ug/L	0.52
Naphthalene	ug/L	0.52
Phenanthrene	ug/L	<0.52
Pyrene	ug/L	0.86

RW-4	Units	5/22/2015
Benzene	ug/L	8.8
Ethylbenzene	ug/L	49
m,p-Xylene	ug/L	95
o-xylene	ug/L	57
Total Xylenes	ug/L	150
Acenaphthene	ug/L	3.2
Acenaphthylene	ug/L	0.64
Anthracene	ug/L	0.84
Fluorene	ug/L	5.3
Naphthalene	ug/L	20
Phenanthrene	ug/L	5.8
Pyrene	ug/L	2.0

RW-1	Units	5/22/2015
Benzene	ug/L	<5.0
Ethylbenzene	ug/L	<5.0
m,p-Xylene	ug/L	<5.0
o-xylene	ug/L	<5.0
Total Xylenes	ug/L	<5.0
Acenaphthene	ug/L	1.4
Acenaphthylene	ug/L	<0.51
Anthracene	ug/L	<0.51
Fluorene	ug/L	1.2
Naphthalene	ug/L	0.70
Phenanthrene	ug/L	1.8
Pyrene	ug/L	1.0

FP-1 (MW-1)	Units	5/22/2015
Benzene	ug/L	<5.0
Ethylbenzene	ug/L	130
m,p-Xylene	ug/L	260
o-xylene	ug/L	24
Total Xylenes	ug/L	280
Acenaphthene	ug/L	3.4
Acenaphthylene	ug/L	0.53
Anthracene	ug/L	0.79
Fluorene	ug/L	4.3
Naphthalene	ug/L	27
Phenanthrene	ug/L	4.4
Pyrene	ug/L	1.9

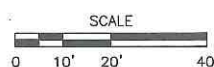
LEGEND:

-  FREE PRODUCT RECOVERY WELL
-  FREE PRODUCT PIEZOMETER
-  EXCAVATION EXTENTS
-  RAILROAD TRACK
-  AIR SUPPLY AND PRODUCT DISCHARGE LINES BURIED 24 TO 36 INCHES

NOTES:

1. LAND SURFACE ELEVATION AROUND EXCAVATION IS APPROXIMATELY 614 FEET, MSL.
2. EXCAVATION FOR CORRECTIVE ACTION OF DIESEL FUEL IMPACTED SOIL EXTENDED TO A DEPTH OF APPROXIMATELY 7 TO 8 FEET BELOW GRADE (EL. 606 - 607).
3. EXCAVATION WAS BACKFILLED AND RAILROAD TRACKS REPLACED BY 5/7/08.

NOTE ON GROUNDWATER SAMPLING RESULTS:
ALL RESULTS ARE LESS THAN APPLICABLE SCREENING LEVELS.



<input checked="" type="checkbox"/> AS-BUILT <input type="checkbox"/> PERMIT APPLICATION <input type="checkbox"/> APPROVED FOR CONSTRUCTION <input type="checkbox"/> CLIENT APPROVAL BY: _____	
DATE: 7/10/15 FILE: 2387351-04 CAD: SHEET2-AB.DWG	DRAWN BY: TAG DESIGN BY: SMS REVIEWED BY: SMS
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PREPARED FOR  ArcelorMittal
 Weaver Consultants Group

GROUNDWATER SAMPLING RESULTS	
DIESEL FUEL FREE PRODUCT REMEDIATION SYSTEM NORTH OF LOCOMOTIVE & MOBILE EQUIPMENT SHOP ARCELORMITTAL BURNS HARBOR, LLC 250 WEST U.S. HIGHWAY 12 BURNS HARBOR, INDIANA	
CHICAGO, IL NAPERVILLE, IL SPRINGFIELD, IL	GRANGER, IN DUBLIN, OH FT. WORTH, TX DENVER, CO
FIGURE 7	

TABLES

TABLE 1
Monitoring and Remediation Well Information
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Well I.D.	Date Drilled	Easting (ft, NAD83)	Northing (ft, NAD83)	Top of Pipe Elevation (ft, NAVD88)	Total Depth of Well (ft)	Length of Screen (ft)
FP-1	5/13/2008	484,015	1,504,225	612.84	20	10.0
FP-2	5/13/2008	483,992	1,504,268	--- ¹	20	10.0
FP-3	5/13/2008	484,052	1,504,322	--- ²	20	10.0
RW-1	10/31/2008	484,037	1,504,236	613.47	20	10.0
RW-2	10/31/2008	484,075	1,504,307	613.43	20	10.0
RW-3	11/3/2008	484,006	1,504,297	613.38	20	10.0
RW-4	11/3/2008	483,999	1,504,236	613.63	20	10.0

1 - Piezometer FP-2 is under the remediation system shed and inaccessible.

2 - Piezometer FP-3 was destroyed during site restoration after excavation of diesel fuel-impacted soil.

TABLE 2
Water Level Elevations
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Well I.D.	Top of Pipe Elevation (ft, NAVD88)	Date of Measurement	Depth to Water (ft)	Groundwater or Surface Water Elevation (ft, NAVD88)
FP-1 (MW-1)	612.84	5/29/2015	10.88	601.96
RW-1	613.47	5/29/2015	11.29	602.18
RW-2	613.43	5/29/2015	11.22	602.21
RW-3	613.38	5/29/2015	11.40	601.98
RW-4	613.63	5/29/2015	11.59	602.04
Lake MI	---	5/29/2015	---	580.50 ¹

1 - Measured by fixed instrumentation at south end of east harbor arm on Lake Michigan.

Table 3
Diesel Fuel Free Product Recovery Summary
Locomotive and Mobile Equipment Repair Shop
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Water in Recovery Tank (gallons)	Cumulative Total Ancillary Groundwater Removed from the Subsurface (gallons)	Diesel Fuel Product in Recovery Tank (gallons)	Cumulative Total Diesel Fuel Product Removed from the Subsurface (gallons)
3/18/2009	0	0	0	0
4/2/2009	9	9	33	33
5/7/2009	17	17	67	67
5/14/2009	15	15	107	107
5/21/2009	21	21	137	137
5/28/2009	19	19	152	152
6/4/2009	22	22	169	169
6/11/2009	25	25	179	179
6/18/2009	25	25	193	193
6/25/2009	21	21	211	211
7/2/2009	23	23	243	243
7/9/2009	25	25	248	248
7/16/2009	25	25	267	267
7/23/2009	26	26	294	294
7/30/2009	26	26	317	317
8/6/2009	26	26	336	336
8/13/2009	12	38	47	383
8/20/2009	12	38	69	405
8/27/2009	12	38	72	408
9/3/2009	12	38	83	419
9/10/2009	13	39	106	442
9/17/2009	13	39	125	461
9/24/2009	13	39	131	467
10/2/2009	14	40	140	476
10/8/2009	15	41	146	482
10/15/2009	15	41	148	484
10/22/2009	16	42	175	511
10/29/2009	16	42	195	531
11/5/2009	31	57	221	557
11/12/2009	47	73	229	565
11/19/2009	57	83	226	562
11/25/2009	62	88	231	567
12/3/2009	62	88	241	577
12/11/2009	62	88	255	591
12/18/2009	63	89	255	591
12/24/2009	64	90	259	595
12/31/2009	64	90	262	598
1/7/2010	62	88	266	602
1/15/2010	62	88	271	607
1/22/2010	59	85	274	610
1/27/2010	62	88	273	609
2/4/2010	63	89	272	608
2/12/2010	63	89	272	608
2/18/2010	62	88	275	611
2/25/2010	64	90	276	612
3/5/2010	66	92	275	611
3/12/2010	67	93	274	610
3/19/2010	67	93	276	612

Table 3
Diesel Fuel Free Product Recovery Summary
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ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Water in Recovery Tank (gallons)	Cumulative Total Ancillary Groundwater Removed from the Subsurface (gallons)	Diesel Fuel Product in Recovery Tank (gallons)	Cumulative Total Diesel Fuel Product Removed from the Subsurface (gallons)
3/26/2010	68	94	278	614
4/1/2010	69	95	278	614
4/8/2010	70	96	280	616
4/16/2010	70	96	283	619
4/22/2010	70	96	287	623
4/30/2010	70	96	289	625
5/7/2010	71	97	299	635
5/14/2010	73	99	300	636
5/21/2010	73	99	313	649
5/28/2010	75	101	318	654
6/4/2010	75	101	326	662
6/10/2010	75	101	335	671
6/17/2010	75	101	344	680
6/24/2010	3	104	5	685
7/1/2010	3	104	6	686
7/8/2010	6	107	38	718
7/14/2010	29	130	44	724
7/22/2010	42	143	47	727
7/29/2010	98	199	53	733
8/6/2010	151	252	60	740
8/12/2010	204	305	48	728
8/19/2010	245	346	55	735
8/26/2010	286	387	54	734
9/3/2010	313	414	56	736
9/10/2010	327	428	59	739
9/16/2010	7	435	13	752
9/24/2010	9	437	14	753
9/30/2010	13	441	19	758
10/7/2010	15	443	22	761
10/14/2010	18	446	29	768
10/21/2010	19	447	32	771
10/28/2010	21	449	36	775
11/4/2010	19	447	35	774
11/11/2010	19	447	38	777
11/19/2010	21	449	41	780
11/24/2010	22	450	43	782
12/2/2010	22	450	46	785
12/10/2010	22	450	47	786
12/16/2010	22	450	49	788
12/23/2010	22	450	50	789
12/30/2010	22	450	51	790
1/6/2011	22	450	52	791
1/13/2011	22	450	53	792
1/20/2011	23	451	51	790
1/27/2011	23	451	51	790
2/4/2011	24	452	51	790
2/11/2011	24	452	51	790
2/17/2011	25	453	51	790
2/24/2011	25	453	51	790
3/3/2011	26	454	52	791

Table 3
 Diesel Fuel Free Product Recovery Summary
 Locomotive and Mobile Equipment Repair Shop
 ArcelorMittal Burns Harbor, LLC
 Burns Harbor, Indiana

Date	Water in Recovery Tank (gallons)	Cumulative Total Ancillary Groundwater Removed from the Subsurface (gallons)	Diesel Fuel Product in Recovery Tank (gallons)	Cumulative Total Diesel Fuel Product Removed from the Subsurface (gallons)
3/10/2011	26	454	52	791
3/17/2011	21	449	60	799
3/24/2011	24	452	68	807
3/31/2011	33	461	68	807
4/7/2011	34	462	73	812
4/14/2011	35	463	75	814
4/22/2011	36	464	77	816
4/28/2011	42	470	77	816
5/5/2011	49	477	83	822
5/12/2011	59	487	80	819
5/19/2011	67	495	81	820
5/27/2011	73	501	85	824
6/2/2011	78	506	85	824
6/10/2011	84	512	90	829
6/16/2011	87	515	104	843
6/23/2011	95	523	133	872
6/30/2011	119	547	132	871
7/7/2011	132	560	175	914
7/15/2011	144	572	235	974
7/21/2011	6	578	23	997
7/29/2011	15	587	52	1,026
8/4/2011	64	636	28	1,002
8/11/2011	107	679	18	992
8/18/2011	119	691	22	996
8/25/2011	122	694	42	1,016
9/1/2011	122	694	65	1,039
9/8/2011	124	696	82	1,056
9/15/2011	124	696	87	1,061
9/22/2011	124	696	94	1,068
9/30/2011	124	696	95	1,069
10/6/2011	119	691	98	1,072
10/13/2011	119	691	102	1,076
10/21/2011	122	694	105	1,079
10/28/2011	124	696	107	1,081
11/4/2011	126	698	106	1,080
11/11/2011	128	700	103	1,077
11/18/2011	125	697	107	1,081
11/23/2011	122	694	110	1,084
12/1/2011	122	694	109	1,083
12/8/2011	122	694	109	1,083
12/15/2011	124	696	109	1,083
12/22/2011	112	684	119	1,093
12/29/2011	127	699	111	1,085
1/5/2012	129	701	110	1,084
1/12/2012	129	701	112	1,086
1/20/2012	132	704	111	1,085
1/27/2012	132	704	113	1,087
2/2/2012	135	707	110	1,084
2/9/2012	132	704	115	1,089
2/16/2012	133	705	115	1,089

Table 3
 Diesel Fuel Free Product Recovery Summary
 Locomotive and Mobile Equipment Repair Shop
 ArcelorMittal Burns Harbor, LLC
 Burns Harbor, Indiana

Date	Water in Recovery Tank (gallons)	Cumulative Total Ancillary Groundwater Removed from the Subsurface (gallons)	Diesel Fuel Product in Recovery Tank (gallons)	Cumulative Total Diesel Fuel Product Removed from the Subsurface (gallons)
2/23/2012	132	704	120	1,094
3/1/2012	132	704	120	1,094
3/8/2012	132	704	118	1,092
3/15/2012	132	704	116	1,090
3/22/2012	133	705	122	1,096
3/29/2012	135	707	124	1,098
4/6/2012	132	704	128	1,102
4/12/2012	132	704	128	1,102
4/19/2012	132	704	128	1,102
4/26/2012	135	707	131	1,105
5/4/2012	136	708	130	1,104
5/11/2012	136	708	132	1,106
5/31/2012	136	708	132	1,106
6/7/2012	136	708	132	1,106
6/15/2012	138	710	134	1,108
6/22/2012	138	710	138	1,112
6/29/2012	140	712	136	1,110
7/9/2012	140	712	146	1,120
7/13/2012	140	712	148	1,122
7/20/2012	141	713	155	1,129
7/26/2012	143	715	155	1,129
8/2/2012	144	716	155	1,129
8/10/2012	144	716	157	1,131
8/16/2012	144	716	162	1,136
8/23/2012	151	723	157	1,131
8/30/2012	151	723	157	1,131
9/6/2012	0	723	1	1,132
9/14/2012	1	724	5	1,136
9/20/2012	4	727	7	1,138
9/27/2012	5	728	9	1,140
10/4/2012	5	728	10	1,141
10/11/2012	5	728	12	1,143
10/19/2012	6	729	15	1,146
10/26/2012	6	729	15	1,146
11/1/2012	7	730	13	1,144
11/8/2012	7	730	17	1,148
11/21/2012	7	730	19	1,150
11/29/2012	47	770	26	1,157
12/6/2012	78	801	32	1,163
12/13/2012	89	812	36	1,167
12/20/2012	108	831	37	1,168
12/27/2012	119	842	32	1,163
1/3/2013	122	845	38	1,169
1/9/2013	135	858	36	1,167
1/16/2013	148	871	39	1,170
1/24/2013	151	874	46	1,177
2/4/2013	164	887	47	1,178
2/8/2013	177	900	44	1,175
2/14/2013	184	907	44	1,175
2/21/2013	184	907	47	1,178

Table 3
Diesel Fuel Free Product Recovery Summary
Locomotive and Mobile Equipment Repair Shop
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Water in Recovery Tank (gallons)	Cumulative Total Ancillary Groundwater Removed from the Subsurface (gallons)	Diesel Fuel Product in Recovery Tank (gallons)	Cumulative Total Diesel Fuel Product Removed from the Subsurface (gallons)
2/28/2013	197	920	48	1,179
3/8/2013	201	924	44	1,175
3/15/2013	207	930	51	1,182
3/22/2013	214	937	51	1,182
3/28/2013	221	944	51	1,182
4/4/2013	224	947	51	1,182
4/12/2013	224	947	62	1,193
4/19/2013	252	975	68	1,199
4/26/2013	289	1,012	51	1,182
5/3/2013	301	1,024	52	1,183
5/9/2013	301	1,024	54	1,185
5/16/2013	7	1,031	1	1,186
5/24/2013	12	1,036	9	1,194
5/30/2013	21	1,045	7	1,192
6/7/2013	28	1,052	9	1,194
6/13/2013	38	1,062	40	1,225
6/21/2013	62	1,086	54	1,239
6/28/2013	87	1,111	66	1,251
7/5/2013	122	1,146	66	1,251
7/12/2013	132	1,156	82	1,267
7/18/2013	146	1,170	102	1,287
7/25/2013	149	1,173	140	1,325
8/2/2013	156	1,180	151	1,336
8/9/2013	163	1,187	152	1,337
8/16/2013	167	1,191	154	1,339
8/23/2013	174	1,198	154	1,339
8/30/2013	187	1,211	152	1,337
9/6/2013	184	1,208	163	1,348
9/12/2013	1	1,209	2	1,350
9/19/2013	3	1,211	3	1,351
9/27/2013	5	1,213	7	1,355
10/4/2013	6	1,214	15	1,363
10/11/2013	7	1,215	16	1,364
10/18/2013	7	1,215	13	1,361
10/25/2013	8	1,216	13	1,361
11/1/2013	9	1,217	13	1,361
11/8/2013	10	1,218	12	1,360
11/15/2013	10	1,218	12	1,360
11/22/2013	11	1,219	12	1,360
11/27/2013	12	1,220	13	1,361
12/4/2013	12	1,220	13	1,361
12/13/2013	10	1,218	15	1,363
12/19/2013	10	1,218	14	1,362
12/27/2013	12	1,220	17	1,365
1/10/2014	12	1,220	18	1,366
1/17/2014	12	1,220	17	1,365
1/31/2014	12	1,220	18	1,366
2/12/2014	13	1,221	19	1,367
2/28/2014	15	1,223	21	1,369
3/7/2014	18	1,226	20	1,368

Table 3
Diesel Fuel Free Product Recovery Summary
Locomotive and Mobile Equipment Repair Shop
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Water in Recovery Tank (gallons)	Cumulative Total Ancillary Groundwater Removed from the Subsurface (gallons)	Diesel Fuel Product in Recovery Tank (gallons)	Cumulative Total Diesel Fuel Product Removed from the Subsurface (gallons)
3/14/2014	29	1,237	44	1,392
3/21/2014	75	1,283	14	1,362
3/28/2014	78	1,286	20	1,368
4/4/2014	135	1,343	23	1,371
4/11/2014	207	1,415	20	1,368
4/18/2014	245	1,453	31	1,379
4/25/2014	259	1,467	14	1,362
4/30/2014	269	1,477	24	1,372
5/8/2014	269	1,477	31	1,379
5/16/2014	272	1,480	38	1,386
5/23/2014	320	1,528	33	1,381
5/30/2014	385	1,593	34	1,382
6/6/2014	5	1,598	0	1,382
6/13/2014	10	1,603	0	1,382
6/23/2014	7	1,600	3	1,385
6/27/2014	5	1,598	5	1,387
7/7/2014	13	1,606	3	1,385
7/11/2014	17	1,610	4	1,386
7/18/2014	17	1,610	8	1,390
7/23/2014	23	1,616	4	1,386
8/1/2014	23	1,616	6	1,388
8/8/2014	23	1,616	6	1,388
8/15/2014	26	1,619	6	1,388
8/22/2014	49	1,642	13	1,395
8/29/2014	59	1,652	11	1,393
9/4/2014	64	1,657	11	1,393
9/12/2014	67	1,660	11	1,393
9/19/2014	70	1,663	8	1,390
9/26/2014	78	1,671	9	1,391
10/3/2014	78	1,671	14	1,396
10/9/2014	84	1,677	15	1,397
10/16/2014	89	1,682	15	1,397
10/23/2014	119	1,712	12	1,394
10/31/2014	138	1,731	19	1,401
11/6/2014	132	1,725	19	1,401
11/17/2014	138	1,731	23	1,405
11/21/2014	157	1,750	23	1,405
11/26/2014	167	1,760	17	1,399
12/2/2014	177	1,770	17	1,399
12/9/2014	180	1,773	20	1,402
12/16/2014	194	1,787	17	1,399
12/23/2014	201	1,794	17	1,399
12/26/2014	207	1,800	14	1,396

Table 3
Diesel Fuel Free Product Recovery Summary
Locomotive and Mobile Equipment Repair Shop
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Water in Recovery Tank (gallons)	Cumulative Total Ancillary Groundwater Removed from the Subsurface (gallons)	Diesel Fuel Product in Recovery Tank (gallons)	Cumulative Total Diesel Fuel Product Removed from the Subsurface (gallons)
1/2/2015	211	1,804	17	1,399
1/9/2015	228	1,821	24	1,406
1/16/2015	211	1,804	17	1,399
1/23/2015	228	1,821	17	1,399
1/30/2015	221	1,814	17	1,399
2/6/2015	231	1,824	17	1,399
2/13/2015	235	1,828	17	1,399
2/20/2015	238	1,831	17	1,399
2/27/2015	245	1,838	17	1,399
3/6/2015	248	1,841	17	1,399
3/13/2015	252	1,845	17	1,399
3/20/2015	255	1,848	17	1,399
3/27/2015	259	1,852	17	1,399
4/3/2015	259	1,852	17	1,399
4/10/2015	262	1,855	17	1,399
4/17/2015	265	1,858	21	1,403
4/24/2015	265	1,858	24	1,406
5/1/2015	272	1,865	21	1,403
5/8/2015	276	1,869	21	1,403
5/15/2015	279	1,872	24	1,406
5/22/2015	276	1,869	31	1,413
5/29/2015	293	1,886	27	1,409
6/4/2015	293	1,886	27	1,409
6/11/2015	296	1,889	27	1,409
6/18/2015	300	1,893	27	1,409
6/25/2015	300	1,893	27	1,409
GRAND TOTAL				1,409

Note 1: The volume of water and diesel fuel contained in the tanks is based on dipstick measurements to the nearest 0.25 inch. The quantity of water is estimated using water-finding paste applied to the lower portion of the dipstick. Dipstick measurements are converted to gallons using a tank chart

Note 2: Tank emptied on August 6, 2009, June 17, 2010, September 10, 2010, July 15, 2011, August 30, 2012, May 9, 2013, September 6, 2013, and May 31, 2014

Table 4
Apparent Thickness of Free Product in Wells
Locomotive and Mobile Equipment Repair Shop
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Apparent Thickness of Free Product Observed in Recovery Wells (Inches)			
	RW-1	RW-2	RW-3	RW-4
3/16/2009	0.00	0.25	2.00	1.00
4/2/2009	0.00	0.19	1.75	0.01
5/7/2009	0.00	0.50	1.75	0.20
5/21/2009	0.00	0.50	1.50	0.25
5/28/2009	0.00	0.13	0.13	0.25
6/4/2009	0.005	0.13	0.38	0.13
6/11/2009	Not Measured	0.13	0.25	0.13
6/18/2009	0.005	0.13	0.38	0.005
6/25/2009	0.005	0.13	0.38	0.005
7/2/2009	0.005	0.13	0.25	0.005
7/9/2009	0.005	0.13	0.25	0.005
7/16/2009	0.005	0.13	0.25	0.13
7/23/2009	0.005	0.13	0.25	0.13
7/30/2009	0.005	0.25	0.375	0.005
8/6/2009	0.005	0.375	0.375	0.005
8/13/2009	0.005	0.5	4.5	0.5
8/20/2009	0.005	0.5	0.75	0.5
8/27/2009	0.005	0.25	0.375	0.25
9/3/2009	0.005	0.25	0.375	0.25
9/10/2009	0.005	0.25	2.75	0.25
9/17/2009	0.005	0.25	5.0	5.5
9/24/2009	0.005	0.25	5.0	5.0
10/2/2009	0.005	0.25	5.0	7.0
10/8/2009	0.005	0.25	6.0	7.5
10/15/2009	0.005	0.9	8.0	9.8
10/22/2009	0.005	0.125	0.8	2.0
10/29/2009	0.19	0.125	0.005	0.5
11/5/2009	0.005	0.125	0.25	0.005
11/12/2009	0.005	0.125	0.25	0.125
11/19/2009	0.005	0.125	0.25	0.125
11/25/2009	0.005	0.125	0.375	0.25
12/3/2009	0.005	0.125	0.5	0.375
12/11/2009	0.005	0.5	0.5	0.125
12/18/2009	0.005	0.38	0.5	0.125
12/24/2009	0.005	0.125	0.5	0.25
12/31/2009	0.005	0.005	0.25	0.125
1/7/2010	0.005	---	---	0.188
1/15/2010	0.005	0.125	0.75	0.25
1/22/2010	0.005	0.25	1.0	0.375
1/27/2010	0.005	0.125	0.75	0.375
2/4/2010	0.005	0.25	1.0	0.375
2/12/2010	0.50	0.375	0.75	0.375
2/18/2010	0.005	0.125	0.125	0.005
2/25/2010	0.005	0.125	0.125	0.005
3/5/2010	0.125	0.25	0.625	0.125
3/12/2010	0.005	0.25	0.25	0.005
3/19/2010	0.005	0.5	2.0	0.005
3/26/2010	0.005	0.25	1.0	0.005

Table 4
Apparent Thickness of Free Product in Wells
Locomotive and Mobile Equipment Repair Shop
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Apparent Thickness of Free Product Observed in Recovery Wells (Inches)			
	RW-1	RW-2	RW-3	RW-4
4/1/2010	0.005	0.38	1.0	0.005
4/8/2010	0.125	0.375	0.25	0.005
4/16/2010	0.005	0.125	0.25	0.005
4/22/2010	0.005	0.25	1.0	0.0125
4/30/2010	0.005	0.13	0.25	0.005
5/7/2010	0.005	0.25	0.625	0.125
5/14/2010	0.125	0.25	0.375	0.125
5/21/2010	0.005	0.13	0.25	0.005
5/28/2010	0.005	0.125	0.75	0.125
6/4/2010	0.005	0.125	0.50	0.125
6/10/2010	0.005	0.125	0.25	0.125
6/17/2010	0.005	0.125	0.25	0.125
6/24/2010	0.005	0.25	0.25	0.125
7/1/2010	0.005	0.125	0.50	0.125
7/8/2010	0.005	0.125	0.25	1.25
7/14/2010	0.005	0.125	0.50	4.25
7/22/2010	0.005	0.005	0.25	1.50
7/29/2010	0.005	0.005	0.75	1.50
8/6/2010	0.005	0.005	0.25	4.00
8/12/2010	0.005	0.005	0.50	3.75
8/19/2010	0.005	0.125	0.25	2.50
8/26/2010	0.005	0.005	0.25	0.13
9/3/2010	0.005	0.005	0.25	0.50
9/10/2010	0.005	0.005	0.005	0.13
9/16/2010	0.005	0.005	0.13	0.13
9/24/2010	0.005	0.005	0.25	0.005
9/30/2010	0.005	0.005	0.50	0.125
10/7/2010	0.005	0.005	0.375	0.125
10/14/2010	0.005	0.005	0.625	0.005
10/21/2010	0.005	0.005	0.500	0.063
10/28/2010	0.005	0.005	1.0	0.25
11/4/2010	0.005	0.005	0.75	0.125
11/11/2010	0.005	0.005	0.50	0.125
11/19/2010	0.005	0.005	0.25	0.125
11/24/2010	0.005	0.125	0.75	0.25
12/2/2010	0.005	0.125	0.5	0.25
12/10/2010	0.005	0.005	0.25	0.125
12/16/2010	0.005	0.125	0.125	0.005
12/23/2010	0.005	0.125	0.25	0.125
12/30/2010	0.005	0.005	0.25	0.125
1/6/2011	0.005	0.005	0.75	0.25
1/13/2011	0.005	0.005	0.5	0.125
1/20/2011	0.005	0.125	0.625	0.375
1/27/2011	0.005	0.125	1.0	0.75
2/4/2011	0.005	0.005	0.5	0.25
2/17/2011	0.005	0.125	1.0	0.375
2/24/2011	0.125	0.005	0.5	0.25
3/3/2011	0.005	0.25	0.75	0.5
3/10/2011	0.005	0.005	0.5	0.4
3/17/2011	0.01	0.005	0.9	0.25

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ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Apparent Thickness of Free Product Observed in Recovery Wells (Inches)			
	RW-1	RW-2	RW-3	RW-4
3/24/2011	0.005	0.005	0.75	0.125
3/31/2011	0.125	0.005	0.5	1.0
4/7/2011	0.005	0.125	0.6	0.375
4/14/2011	0.005	0.005	0.75	0.25
4/22/2011	0.005	0.005	1.0	0.5
4/28/2011	0.005	0.125	0.5	0.25
5/5/2011	0.005	0.005	0.25	1.5
5/12/2011	0.005	0.005	0.25	0.75
5/19/2011	0.005	0.125	0.5	1.0
5/27/2011	0.005	0.005	0.75	1.5
6/2/2011	0.005	0.125	0.5	1.5
6/10/2011	0.005	0.125	0.5	2.0
6/16/2011	0.005	0.125	1.0	3.0
6/23/2011	0.005	0.005	1.0	2.5
6/30/2011	0.005	0.25	1.5	3.0
7/7/2011	0.005	0.125	1.0	2.5
7/15/2011	0.005	0.005	0.75	2.0
7/21/2011	0.005	0.005	0.75	1.5
7/29/2011	0.005	0.25	1.0	3.0
8/4/2011	0.005	0.125	4.0	5.0
8/11/2011	0.005	0.005	1.0	10.5
8/18/2011	0.005	0.005	1.0	0.25
8/25/2011	0.005	Not Measured	1.0	0.375
9/1/2011	0.005	Not Measured	0.75	0.375
9/8/2011	0.005	Not Measured	0.25	0.25
9/15/2011	0.005	Not Measured	0.5	0.75
9/22/2011	0.005	Not Measured	1.0	1.25
9/30/2011	0.005	0.125	0.25	0.375
10/6/2011	0.005	0.005	0.375	0.375
10/13/2011	0.005	0.005	0.375	0.50
10/21/2011	0.005	0.005	0.50	0.25
10/28/2011	0.005	0.125	0.25	0.005
11/4/2011	0.005	0.005	0.375	0.125
11/11/2011	0.005	0.005	0.250	0.250
11/18/2011	0.005	0.005	0.250	0.125
11/23/2011	0.005	0.005	0.75	0.50
12/1/2011	0.005	0.125	0.50	0.25
12/8/2011	0.005	0.005	0.375	0.125
12/15/2011	0.005	0.005	0.375	0.125
12/22/2011	0.005	0.005	0.5	0.25
12/29/2011	0.005	0.125	1.0	0.375
1/5/2012	0.005	0.005	0.75	0.25
1/12/2012	0.005	0.125	0.50	0.25
1/20/2012	0.005	0.125	0.75	0.50
1/27/2012	0.005	0.005	0.50	0.25
2/2/2012	0.005	0.125	0.625	0.005
2/9/2012	0.005	0.005	0.50	0.125
2/16/2012	0.005	0.005	0.25	0.125
2/23/2012	0.005	0.005	0.375	0.005
3/1/2012	0.005	0.25	1.25	0.625

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ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Apparent Thickness of Free Product Observed in Recovery Wells (Inches)			
	RW-1	RW-2	RW-3	RW-4
3/8/2012	0.005	0.25	1.25	0.625
3/15/2012	0.005	0.005	2.5	0.5
3/22/2012	0.005	0.005	0.25	0.125
3/29/2012	0.005	0.005	0.13	0.125
4/6/2012	0.005	0.005	0.750	0.375
4/12/2012	0.005	0.005	0.625	0.125
4/19/2012	0.005	0.005	0.50	0.005
4/26/2012	0.005	0.005	0.50	0.005
5/4/2012	0.005	0.125	0.625	0.25
5/11/2012	0.005	0.125	0.750	0.25
5/31/2012	0.125	0.25	0.75	0.50
6/7/2012	0.125	0.25	1.00	0.50
6/15/2012	0.005	0.005	0.625	0.375
6/22/2012	0.005	0.125	0.375	0.25
6/29/2012	0.005	0.125	0.75	1.0
7/9/2012	0.005	0.005	0.25	0.5
7/13/2012	0.005	0.005	0.125	0.25
7/20/2012	0.005	0.005	0.125	0.25
7/26/2012	0.005	0.005	0.125	0.005
8/2/2012	0.005	0.005	0.25	0.125
8/10/2012	0.005	0.005	0.75	0.375
8/16/2012	0.005	0.125	0.50	0.25
8/23/2012	0.005	0.060	0.25	0.25
8/30/2012	0.005	N/A	0.25	0.375
9/6/2012	0.005	0.005	0.50	0.25
9/14/2012	0.005	0.005	0.25	0.25
9/20/2012	0.005	0.125	0.50	0.25
9/27/2012	0.005	0.125	0.375	0.25
10/4/2012	0.005	0.005	0.50	0.25
10/11/2012	0.005	0.25	1.50	1.00
10/19/2012	0.005	0.005	0.50	0.25
10/26/2012	0.005	0.005	0.25	0.25
11/1/2012	0.005	0.005	1.50	0.25
11/8/2012	0.005	0.005	1.00	0.50
11/21/2012	0.005	0.005	0.50	0.25
11/29/2012	0.005	0.005	0.50	0.25
12/6/2012	0.005	0.005	0.50	0.13
12/13/2012	0.005	0.005	0.50	0.25
12/20/2012	0.005	0.005	0.50	0.25
12/27/2012	0.005	0.005	0.50	0.25
1/3/2013	0.005	0.005	1.00	0.005
1/9/2013	0.005	0.005	1.00	0.005
1/16/2013	0.005	0.005	0.5	0.005
1/24/2013	0.005	0.005	0.5	0.005
2/4/2013	0.005	0.005	0.005	0.005
2/8/2013	0.005	0.005	0.06	0.005
2/14/2013	0.005	0.005	0.06	0.005
2/21/2013	0.00	0.00	0.25	0.25
2/28/2013	0.00	0.00	0.75	0.25
3/8/2013	0.00	0.00	0.75	0.00

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Apparent Thickness of Free Product in Wells
Locomotive and Mobile Equipment Repair Shop
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Apparent Thickness of Free Product Observed in Recovery Wells (Inches)			
	RW-1	RW-2	RW-3	RW-4
3/15/2013	0.00	0.00	0.13	0.13
3/22/2013	0.00	0.00	0.00	0.00
3/28/2013	0.00	0.00	0.13	0.00
4/4/2013	0.00	0.00	0.13	0.13
4/12/2013	0.00	0.00	0.00	0.13
4/19/2013	0.00	0.00	0.00	0.00
4/26/2013	0.00	0.00	0.00	0.00
5/3/2013	0.00	0.00	0.00	0.00
5/9/2013	0.06	0.00	0.00	0.00
5/16/2013	0.13	Sheen	0.125	Sheen
5/24/2013	Sheen	Sheen	0.375	Sheen
5/30/2013	Sheen	Sheen	0.125	0.125
6/7/2013	Sheen	0.125	Sheen	Sheen
6/13/2013	0.13	0.125	Sheen	Sheen
6/21/2013	0.00	Sheen	Sheen	0.125
6/28/2013	Sheen	Sheen	0.00	Sheen
7/5/2013	Sheen	0.125	0.125	0.00
7/11/2013	Sheen	Sheen	0.125	Sheen
7/18/2013	Sheen	0.125	0.375	0.25
7/25/2013	Sheen	0.125	0.125	Sheen
8/2/2013	Sheen	Sheen	0.125	0.125
8/9/2013	Sheen	Sheen	0.375	0.125
8/16/2013	Sheen	Sheen	0.250	0.125
8/23/2013	Sheen	Sheen	1.0	0.25
8/30/2013	Sheen	Sheen	0.5	0.125
9/6/2013	Sheen	Sheen	0.625	0.125
9/12/2013	Sheen	Sheen	0.125	1.0
9/19/2013	Sheen	Sheen	0.25	1.0
9/27/2013	0.125	Sheen	0.5	2.5
10/4/2013	0.125	Sheen	0.375	1.0
10/11/2013	Sheen	Sheen	0.125	0.75
10/18/2013	0.125	Sheen	0.50	0.50
10/25/2013	Sheen	Sheen	0.25	Sheen
11/1/2013	Sheen	Sheen	0.25	Sheen
11/8/2013	Sheen	Sheen	0.125	Sheen
11/15/2013	Sheen	Sheen	0.125	Sheen
11/22/2013	Sheen	Sheen	Sheen	Sheen
11/27/2013	Sheen	Sheen	0.125	Sheen
12/4/2013	Sheen	Sheen	Sheen	Sheen
12/13/2013	Sheen	Sheen	0.125	Sheen
12/19/2013	Sheen	Sheen	0.125	Sheen
12/27/2013	Sheen	Sheen	0.125	0.25
1/10/2014	Sheen	Sheen	Sheen	0.125
1/17/2014	Sheen	Sheen	0.125	Sheen
1/31/2014	Sheen	Sheen	Sheen	Sheen
2/12/2014	Unable to Check	Unable to Check	Unable to Check	Unable to Check
2/28/2014	Sheen	Sheen	0.25	Sheen
3/7/2014	Sheen	Sheen	0.125	Sheen
3/14/2014	Sheen	0.25	0.125	Sheen
3/21/2014	Sheen	Sheen	0.25	0.125

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Locomotive and Mobile Equipment Repair Shop
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Apparent Thickness of Free Product Observed in Recovery Wells (Inches)			
	RW-1	RW-2	RW-3	RW-4
3/28/2014	Sheen	Sheen	0.25	1.0
4/4/2014	Sheen	Sheen	Sheen	Sheen
4/11/2014	Sheen	Sheen	Sheen	0.25
4/18/2014	Sheen	Sheen	Sheen	1.0
4/25/2014	Sheen	Sheen	1.0	2.0
4/30/2014	Sheen	Sheen	0.5	1.0
5/8/2014	Sheen	Sheen	1.0	0.07
5/16/2014	Sheen	Sheen	0.06	Sheen
5/23/2014	Sheen	Sheen	Sheen	Sheen
5/30/2014	Sheen	Sheen	Sheen	Sheen
6/6/2014	Sheen	Sheen	Sheen	Sheen
6/13/2014	Sheen	Sheen	0.5	Sheen
6/23/2014	Sheen	Sheen	0.75	Sheen
6/27/2014	Sheen	Sheen	0.25	Sheen
7/7/2014	Sheen	Sheen	0.063	Sheen
7/11/2014	Sheen	Sheen	1.0	Sheen
7/18/2014	Sheen	Sheen	0.5	Sheen
7/23/2014	0.0	0.0	6.0	0.0
8/1/2014	0.0	0.0	1.0	0.0
8/8/2014	0.0	0.0	1.0	0.13
8/15/2014	Sheen	Sheen	0.25	0.25
8/22/2014	Sheen	Sheen	Sheen	Sheen
8/29/2014	0.0	0.0	0.0	0.0
9/4/2014	0.0	0.0	0.0	0.0
9/12/2014	0.0	0.0	0.0	0.0
9/19/2014	0.1	0.1	0.5	0.0
9/26/2014	0.0	0.0	0.5	0.0
10/3/2014	0.0	0.0	0.25	0.0
10/9/2014	0.0	0.1	0.5	0.5
10/16/2014	0.0	0.0	0.5	1.0
10/23/2014	0.0	0.0	0.75	0.25
10/31/2014	0.0	0.0	1.0	0.25
11/6/2014	0.0	0.0	1.0	0.25
11/17/2014	0.0	0.0	0.5	0.1
11/21/2014	0.0	0.0	0.1	0.25
11/26/2014	0.0	0.0	0.1	0.1
12/2/2014	0.0	0.0	0.25	0.1
12/9/2014	0.0	0.0	0.1	0.1
12/16/2014	0.0	0.0	0.25	0.25
12/23/2014	0.0	0.0	0.25	0.25
12/26/2014	0.0	0.0	1.0	1.0

Table 4
Apparent Thickness of Free Product in Wells
Locomotive and Mobile Equipment Repair Shop
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Date	Apparent Thickness of Free Product Observed in Recovery Wells (Inches)			
	RW-1	RW-2	RW-3	RW-4
1/2/2015	0.0	0.0	1.00	0.25
1/9/2015	0.0	0.0	0.25	0.1
1/16/2015	0.0	0.0	0.25	0.1
1/23/2015	0.0	0.0	0.75	0.1
1/30/2015	0.0	0.0	1.0	0.25
2/6/2015	0.0	0.0	1.0	0.25
2/13/2015	0.0	0.0	1.25	0.5
2/20/2015	0.0	0.0	0.5	0.25
2/27/2015	0.0	0.0	0.5	0.25
3/6/2015	0.0	0.0	0.75	0.25
3/13/2015	0.0	0.0	0.75	0.1
3/20/2015	0.0	0.0	1.75	2.50
3/27/2015	0.0	0.0	2.50	3.50
4/3/2015	0.0	0.0	2.50	4.00
4/10/2015	0.0	0.0	2.00	4.00
4/17/2015	0.0	0.0	1.00	0.10
4/24/2015	0.0	0.0	0.00	0.25
5/1/2015	0.0	0.0	0.00	0.50
5/8/2015	0.0	0.0	0.50	0.25
5/15/2015	0.0	0.0	0.25	1.00
5/22/2015	0.0	0.0	0.40	0.40
5/29/2015	0.0	0.0	0.19	0.15
6/4/2015	0.0	0.0	0.50	0.50
6/11/2015	0.0	0.0	1.00	0.25
6/18/2015	0.0	0.0	1.00	0.50
6/25/2015	0.0	0.0	0.40	0.05

Notes: Free product checked by lowering a bottom-filling bailer into the water table surface, retrieving it, and measuring with a tape measure. In 1Q2013 and earlier, "0.005 inches" indicates that only a sheen was present.

TABLE 5
Groundwater Analytical Data
ArcelorMittal Burns Harbor, LLC
Burns Harbor, Indiana

Parameters	Units	Groundwater Screening Objectives		Well I.D.:	FP-1 (MW-1)	RW-1	RW-2	RW-3	RW-4
				Lab I.D.:	15E1058-01	15E1058-02	15E1058-03	15E1058-04	15E1058-05
		RISC Industrial ¹	RCG Industrial Vapor Intrusion ²	Sampling Date:	5/22/2015	5/22/2015	5/22/2015	5/22/2015	5/22/2015
BTEX									
Benzene	ug/L	52	120		<5.0	<5.0	<5.0	<5.0	8.8
Ethylbenzene	ug/L	10000	---		130	<5.0	<5.0	39	49
m,p-Xylene	ug/L	---	---		260	<5.0	<5.0	55	95
o-Xylene	ug/L	---	---		24	<5.0	<5.0	150	57
Total Xylenes	ug/L	20000	---		280	<5.0	<5.0	210	150
Toluene	ug/L	8200	---		<5.0	<5.0	<5.0	<5.0	<5.0
PAHs									
Acenaphthene	ug/L	6,100	---		3.4	1.4	<0.52	2.0	3.2
Acenaphthylene	ug/L	730	---		0.53	<0.51	<0.52	<0.52	0.64
Anthracene	ug/L	31,000	---		0.79	<0.51	<0.52	<0.52	0.84
Benzo[a]anthracene	ug/L	3.9	---		<0.10	<0.10	<0.10	<0.10	<0.10
Benzo[a]pyrene	ug/L	0.39	---		<0.10	<0.10	<0.10	<0.10	<0.10
Benzo[b]fluoranthene	ug/L	3.9	---		<0.10	<0.10	<0.10	<0.10	<0.10
Benzo[g,h,i]perylene	ug/L	---	---		<0.21	<0.20	<0.21	<0.21	<0.21
Benzo[k]fluoranthene	ug/L	39	---		<0.10	<0.10	<0.10	<0.10	<0.10
Chrysene	ug/L	390	---		<0.52	<0.51	<0.52	<0.52	<0.52
Dibenz[a,h]anthracene	ug/L	0.39	---		<0.10	<0.10	<0.10	<0.10	<0.10
Fluoranthene	ug/L	4,100	---		<0.52	<0.51	<0.52	<0.52	<0.52
Fluorene	ug/L	4,100	---		4.3	1.2	0.52	2.8	5.3
Indeno[1,2,3cd]pyrene	ug/L	3.9	---		0.031	<0.020	<0.021	<0.021	<0.021
Naphthalene	ug/L	2,000	460		27	0.70	0.52	16	20
Phenanthrene	ug/L	310	---	4.4	1.8	<0.52	3.3	5.8	
Pyrene	ug/L	3,100	---	1.9	1.0	0.86	0.75	2.0	

Notes:

--- No screening level for this compound.

4.3 Bold: Compound detected above reporting limit.

53 Result is Greater than a relevant screening level for the property (*none exceed screening level*).

1 - IDEM's Risk Integrated System of Closure (Revised May 1, 2009).

2 - IDEM's Remediation Closure Guide (Revised 2014).

APPENDIX A

Monitoring and Remediation Well and Boring Logs

WEAVER BOOS CONSULTANTS LLC <small>GEOTECHNICAL ENGINEERS AND SCIENTISTS</small>		4085 Meghan Beel CT South Bend, IN 46628 (574) 271-3447 Tel (574) 271-3343 Fax		Soil Boring/Well No.: RW-1			
				File No.: 2387351-04			
				Client: ArcelorMittal Burns Harbor, LLC			
WATER LEVEL DATA		Time Started: 1300		Date Completed: 10/31/2008			
11.5 While Drilling (feet)		Time Completed: 1500		Well is completed at the surface with a 24 x 24 x 24 inch H-20 load rated street box set in concrete.			
11.5 At Completion (feet)		Driller: Pete Dela Cruze (DLZ)					
-- hours after drilling (feet)		Location: North of Locomotive Shop, Burns Harbor, IN					
Grd El.: 614 ft, Easting: 484,037 ft, Northing: 1,504,236 ft		SAMPLE DATA					
DEPTH (ft)	SOIL DESCRIPTION	PID (ppm)	RECOVERY (%)	MOISTURE CONTENT			
1.0	ASPHALT CONCRETE	Boring drilled using 6.25-inch ID hollow-stem augers. Auger sampling only. Completed as 4-in ID schedule 40 PVC diesel fuel free product recovery well.	Damp	Damp			
2.0	Black dense SAND, some silt and gravel						
3.0	Tan medium SAND						
4.0							
5.0							
6.0							
7.0							
8.0							
9.0	Gray fine to medium SAND, petroleum odor					Damp Damp Moist Wet Wet	Global #7 Sand Filter Pack #10 Slot Well Screen
10.0							
11.0							
12.0							
13.0							
14.0							
15.0	4-in PVC Casing Bottom Plug						
16.0							
17.0							
18.0							
19.0							
20.0	Boring and Well Terminated at 20 ft bgs						
NOTES: Elevation from facility design. Easting and Northing SPC NAD27, from Google Earth, likely +/- 10 ft.							
Logged by: S. Keown, Geologist Reviewed: S.M. Stanford, LPG #IN968							

<u>WEAVER</u> <u>BOOS</u> <u>CONSULTANTS</u> <u>LLC</u> <small>GEO-ENVIRONMENTAL ENGINEERS AND SCIENTISTS</small>		4085 Meghan Beel CT South Bend, IN 46628 (574) 271-3447 Tel (574) 271-3343 Fax		Soil Boring/Well No.: RW-2	
				File No.: 2387351-04	
				Client: ArcelorMittal Burns Harbor, LLC	
WATER LEVEL DATA		Time Started: 0830		Date Completed: 10/31/2008	
11.5	While Drilling (feet)	Time Completed: 1200		Well is completed at the surface with a 24 x 24 x 24 inch H-20 load rated street box set in concrete.	
11.5	At Completion (feet)	Driller: Pete Dela Cruze (DLZ)			
--	hours after drilling (feet)	Location: North of Locomotive Shop, Burns Harbor, IN			
Grd El.: 614 ft, Easting: 484,075 ft, Northing: 1,504,307 ft		SAMPLE DATA			
DEPTH (ft)	SOIL DESCRIPTION	PID (ppm)	RECOVERY (%)	MOISTURE CONTENT	
1.0	Black medium GRAVEL	Boring drilled using 6.25-inch ID hollow-stem augers. Auger sampling only. Completed as 4-in ID schedule 40 PVC diesel fuel free product recovery well.		Damp	PVC Cap →
2.0	Black dense SAND, some silt and gravel				Concrete Seal →
3.0	Tan medium SAND				4-in PVC Casing →
4.0					
5.0					
6.0					Damp
7.0					
8.0					
9.0					Damp
10.0					
11.0	Gray fine to medium SAND, petroleum odor				Moist
12.0					Wet
13.0					
14.0					Wet
15.0					
16.0					
17.0					
18.0					Wet
19.0					
20.0	Boring and Well Terminated at 20 ft bgs				

NOTES: Elevation from facility design. Easting and Northing SPC NAD27, from Google Earth, likely +/- 10 ft.

Logged by: S. Keown, Geologist
Reviewed: S.M. Stanford, LPG #IN968

WEAVER BOOS CONSULTANTS LLC <small>GEO-ENVIRONMENTAL ENGINEERS AND SCIENTISTS</small>		4085 Meghan Beel CT South Bend, IN 46628 (574) 271-3447 Tel (574) 271-3343 Fax		Soil Boring/Well No.: RW-3 File No.: 2387351-04 Client: ArcelorMittal Burns Harbor, LLC Date Completed: 11/03/2008	
WATER LEVEL DATA 11.5 While Drilling (feet) 11.5 At Completion (feet) -- hours after drilling (feet)		Time Started: 1230 Time Completed: 1400 Driller: Pete Dela Cruze (DLZ) Location: North of Locomotive Shop, Burns Harbor, IN		Well is completed at the surface with a 24 x 24 x 24 inch H-20 load rated street box set in concrete.	
Grd El.: 614 ft, Easting: 484,006 ft, Northing: 1,504,297 ft		SAMPLE DATA			
DEPTH (ft)	SOIL DESCRIPTION	PID (ppm)	RECOVERY (%)	MOISTURE CONTENT	
1.0	ASPHALT CONCRETE	Boring drilled using 6.25-inch ID hollow-stem augers. Auger sampling only. Completed as 4-in ID schedule 40 PVC diesel fuel free product recovery well.	Damp	Damp	
2.0	Gray CRUSHED STONE				
3.0	Tan medium SAND				
4.0					
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0	Gray fine to medium SAND, petroleum odor				
12.0					
13.0					
14.0					
15.0					
16.0					
17.0					
18.0					
19.0		Wet	Wet		
20.0	Boring and Well Terminated at 20 ft bgs				

NOTES: Elevation from facility design. Easting and Northing SPC NAD27, from Google Earth, likely +/- 10 ft.

Logged by: S. Keown, Geologist
 Reviewed: S.M. Stanford, LPG #IN968

WEAVER BOOS CONSULTANTS LLC <small>GEO-ENVIRONMENTAL ENGINEERS AND SCIENTISTS</small>		4085 Meghan Beel CT South Bend, IN 46628 (574) 271-3447 Tel (574) 271-3343 Fax		Soil Boring/Well No.: RW-4	
				File No.: 2387351-04	
				Client: ArcelorMittal Burns Harbor, LLC	
WATER LEVEL DATA		Time Started: 0800		Date Completed: 11/03/2008	
11.5 While Drilling (feet)		Time Completed: 1200		Well is completed at the surface with a 24 x 24 x 24 inch H-20 load rated street box set in concrete.	
11.5 At Completion (feet)		Driller: Pete Dela Cruze (DLZ)			
-- hours after drilling (feet)		Location: North of Locomotive Shop, Burns Harbor, IN			
Grd El.: 614 ft, Easting: 483,999 ft, Northing: 1,504,236 ft		SAMPLE DATA			
DEPTH (ft)	SOIL DESCRIPTION	PID (ppm)	RECOVERY (%)	MOISTURE CONTENT	
1.0	ASPHALT CONCRETE	Boring drilled using 6.25-inch ID hollow-stem augers. Auger sampling only. Completed as 4-in ID schedule 40 PVC diesel fuel free product recovery well.	Damp	Damp	
2.0	Gray CRUSHED STONE				
3.0	Tan medium SAND				
4.0					
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					
11.0	Gray fine to medium SAND, petroleum odor	Boring drilled using 6.25-inch ID hollow-stem augers. Auger sampling only. Completed as 4-in ID schedule 40 PVC diesel fuel free product recovery well.	Moist Wet Wet Wet	Moist Wet Wet Wet	
12.0					
13.0					
14.0					
15.0					
16.0					
17.0					
18.0					
19.0					
20.0	Boring and Well Terminated at 20 ft bgs				
NOTES: Elevation from facility design. Easting and Northing SPC NAD27, from Google Earth, likely +/- 10 ft.					

Logged by: S. Keown, Geologist
 Reviewed: S.M. Stanford, LPG #IN968

MONITORING WELL COMPLETION REPORT

Site Name	ArcelorMittal	County	Porter	Well Number	FP-1
Site Location	Burns Harbor, Indiana	Northing		Easting	
Drilling Contractor	DLZ			Date Drilling Started	5/13/2008
Head Driller	Pete	Helper	Jim	Date Completed	5/13/2008
Drilling Method	4.25-inch ID HSA			Drilling Fluids 'Type'	
Water Level at Completion	8.83			Date & Time	5/13, 1120
Water Level after 24 hours				Date & Time	

Elevation Ft.

Annular Space Details

Type of Surface Seal:	Flush mount
Type of Annular Sealant:	Bentonite Chips
Amount of Cement:	# of bags 1 lbs. per bag
Amount of Volclay:	# of bags lbs. per bag
Type of Bentonite Seal (Granular, Pellet):	Pellets
Amount of Bentonite:	# of bags 1.25 lbs. per bag 50
Type of Sand Pack	# 5 quartz
Source of Sand	Bagged
Amount of Sand:	# of bags 6 lbs. per bag 50

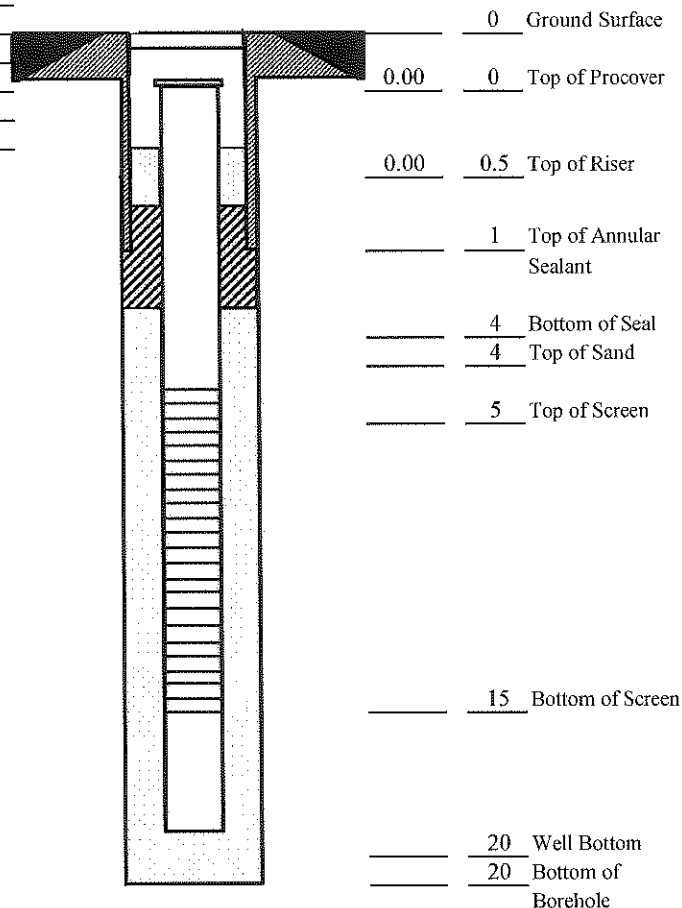
Piezometer Construction Materials

	PVC	Stainless Steel	Teflon
Riser Coupling Joint	2"		
Riser Pipe Above W.T.	2"		
Riser Pipe Below W.T.	2"		
Screen	2"		
Protective Casing			

Riser Pipe Length	10 feet
Protective Casing Length	Flust Manhole
Screen Length	10 feet
Screen Slot Size	0.01 inch
Diameter of borehole - inches	8 inches
ID of Riser Pipe - inches	2 inches

Notes:

Completed by	Jodi Slough
Surveyed by	
File Number	2387-351-04



Weaver Boos Consultants, LLC

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MONITORING WELL COMPLETION REPORT

Site Name	ArcelorMittal	County	Porter	Well Number	FP-2
Site Location	Burns Harbor, Indiana	Northing		Easting	
Drilling Contractor	DLZ			Date Drilling Started	5/13/2008
Head Driller	Pete	Helper	Jim	Date Completed	5/13/2008
Drilling Method	4.25-inch ID HSA			Drilling Fluids 'Type'	
Water Level at Completion	10.33			Date & Time	5/13, 1300
Water Level after 24 hours				Date & Time	

Elevation Ft.

Annular Space Details

Type of Surface Seal:	Flush mount
Type of Annular Sealant:	Bentonite Chips
Amount of Cement:	# of bags 1 lbs. per bag
Amount of Volclay:	# of bags lbs. per bag
Type of Bentonite Seal (Granular, Pellet):	Pellets
Amount of Bentonite:	# of bags 1.25 lbs. per bag 50
Type of Sand Pack	# 5 quartz
Source of Sand	Bagged
Amount of Sand:	# of bags 6 lbs. per bag 50

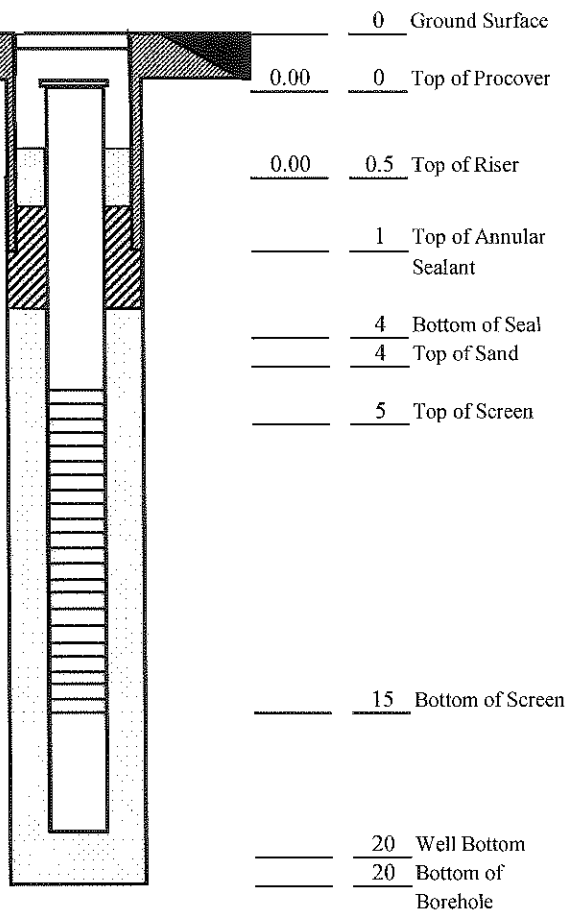
Piezometer Construction Materials

	PVC	Stainless Steel	Teflon
Riser Coupling Joint	2"		
Riser Pipe Above W.T.	2"		
Riser Pipe Below W.T.	2"		
Screen	2"		
Protective Casing			

Riser Pipe Length	10 feet
Protective Casing Length	Flush Manhole
Screen Length	10 feet
Screen Slot Size	0.01 inch
Diameter of borehole - inches	8 inches
ID of Riser Pipe - inches	2 inches

Notes:

Completed by	Jodi Slough
Surveyed by	
File Number	2387-351-04



Weaver Boos Consultants, LLC

4085 Meghan Beeler Court
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MONITORING WELL COMPLETION REPORT

Site Name	ArcelorMittal	County	Porter	Well Number	FP-3
Site Location	Burns Harbor, Indiana	North		Easting	
Drilling Contractor	DLZ			Date Drilling Started	5/13/2008
Head Driller	Pete	Helper	Jim	Date Completed	5/13/2008
Drilling Method	4.25-inch ID HSA			Drilling Fluids Type	
Water Level at Completion	9.51			Date & Time	5/13, 1430
Water Level after 24 hours				Date & Time	

Elevation Ft.

Annular Space Details

Type of Surface Seal:	Flush mount
Type of Annular Sealant:	Bentonite Chips
Amount of Cement:	# of bags 1 lbs. per bag
Amount of Volclay:	# of bags lbs. per bag
Type of Bentonite Seal (Granular, Pellet):	Pellets
Amount of Bentonite:	# of bags 1.25 lbs. per bag 50
Type of Sand Pack	# 5 quartz
Source of Sand	Bagged
Amount of Sand:	# of bags 6 lbs. per bag 50

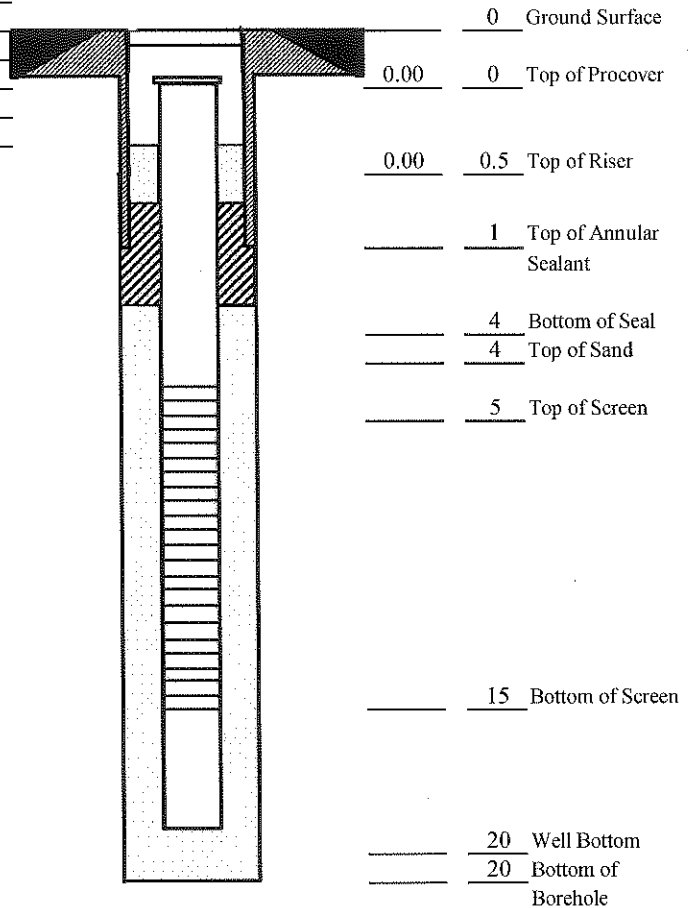
Piezometer Construction Materials

	PVC	Stainless Steel	Teflon
Riser Coupling Joint	2"		
Riser Pipe Above W.T.	2"		
Riser Pipe Below W.T.	2"		
Screen	2"		
Protective Casing			

Riser Pipe Length	10 feet
Protective Casing Length	Flush Manhole
Screen Length	10 feet
Screen Slot Size	0.01 inch
Diameter of borehole - inches	8 inches
ID of Riser Pipe - inches	2 inches

Notes:

Completed by	Jodi Slough
Surveyed by	
File Number	2387-351-04



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APPENDIX B

Weekly Operating Records



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 6/25/2015 Time: 12:55 Observations by: Alex Huang
Weather Conditions: Mostly cloudy, 75° F Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 16 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): 0 :Low 175 :High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 85
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 92
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min
Water in Vacuum Lines? No significant amount of water was drained from SVE lines.
Compressor Oil Level OK? Yes

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): <u>29.00</u>	Total Fluid Volume in Tank (gal): <u>326.58</u>	Read from Tank Chart
Water Level in Tank (in): <u>27.00</u>	Water Volume in tank (gal): <u>299.54</u>	
Oil Volume in Tank (total fluid volume less water volume (gal): <u>27.04</u>		

Pumping time (Read from Controller):	RW-1 <u>615</u> :hr <u>13</u> :min	RW-3 <u>543</u> :hr <u>12</u> :min
	RW-2 <u>502</u> :hr <u>50</u> :min	RW-4 <u>554</u> :hr <u>47</u> :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): <u>0.00</u>	Free Product in RW-3 (in): <u>0.40</u>
Free Product in RW-2 (in): <u>0.00</u>	Free Product in RW-4 (in): <u>0.05</u>

Remarks: 0.4 gallons of condensate was drained from the compressor. RW-4 indicated a visible apparent oi/water emulsion just below a sheen of phase-separated diesel fuel.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 6/18/2015 Time: 14:45 Observations by: Alex Huang
Weather Conditions: Mostly cloudy, 83° F Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. Y :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 17 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): N Observed cycle pressures (psi): 0 :Low 175 :High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): Initially 0, increased to 84
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 92
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min
Water in Vacuum Lines? Approx. 0.25 gallons of water drained from SVE lines.
Compressor Oil Level OK? Yes

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 29.00 Total Fluid Volume in Tank (gal): 326.58 Read from Tank Chart
Water Level in Tank (in): 27.00 Water Volume in tank (gal): 299.54
Oil Volume in Tank (total fluid volume less water volume (gal): 27.04

Pumping time (Read from Controller): **RW-1** 610 :hr 33 :min **RW-3** 538 :hr 32 :min
RW-2 500 :hr 30 :min **RW-4** 550 :hr 7 :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 1.00
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 0.50

Remarks: The air compressor was initially off, with downsteam pressure gauges reading 0 psi. Normal operation resumed with a control panel reset of the system. An insignificant amount of water was drained from the compressor afterward. No other irregularities were noted in the remediation system during this event.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 6/11/2015 Time: 13:00 Observations by: Alex Huang
Weather Conditions: Mostly cloudy, 79° F Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 15 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): _____:Low _____:High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 87
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 92
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min
Water in Vacuum Lines? No significant water drained from SVE lines.
Compressor Oil Level OK? Yes

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 28.75 Total Fluid Volume in Tank (gal): 323.22 Read from Tank Chart
Water Level in Tank (in): 26.75 Water Volume in tank (gal): 296.14
Oil Volume in Tank (total fluid volume less water volume (gal): 27.08

Pumping time (Read from Controller): **RW-1** 605 :hr 53 :min **RW-3** 533 :hr 52 :min
RW-2 498 :hr 10 :min **RW-4** 545 :hr 27 :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 1.00
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 0.25

Remarks: Approximately 0.35 gallons drained from the compressor. All conditions typical, equipment operating normally.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 6/4/2015 Time: 12:30 Observations by: Alex Huang
Weather Conditions: Mostly cloudy, 78° F Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 15 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): _____:Low 180:High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 86
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 92
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min
Water in Vacuum Lines? No significant water drained from SVE lines.
Compressor Oil Level OK? Yes

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 28.50 Total Fluid Volume in Tank (gal): 319.86 Read from Tank Chart
Water Level in Tank (in): 26.50 Water Volume in tank (gal): 292.73
Oil Volume in Tank (total fluid volume less water volume (gal): 27.13

Pumping time (Read from Controller): **RW-1** 601 :hr 13 :min **RW-3** 529 :hr 12 :min
RW-2 495 :hr 50 :min **RW-4** 540 :hr 47 :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 0.50
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 0.50

Remarks: Approximately 0.2 gallon was drained from the compressor. All conditions typical and equipment operating normally.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 5/29/2015 Time: 12:00 Observations by: Steven Stanford
Weather Conditions: Cloudy and windy, 80° F Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 14.5, steady Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): 175 :Low 125 :High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 85
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 90
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min
Water in Vacuum Lines? No significant water drained from SVE lines.
Compressor Oil Level OK? Yes

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 28.50 Total Fluid Volume in Tank (gal): 319.86 Read from Tank Chart
Water Level in Tank (in): 26.50 Water Volume in tank (gal): 292.73
Oil Volume in Tank (total fluid volume less water volume (gal): 27.13
Pumping time (Read from Controller): **RW-1** 597 :hr 13 :min **RW-3** 525 :hr 12 :min
RW-2 493 :hr 50 :min **RW-4** 536 :hr 47 :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 0.19
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 0.15

Remarks: Approximately 0.5 gallons was drained from the compressor. Free product levels were measured with an electronic interface probe in lieu of a bailer. Depth to water/depth to oil (ft) are as follows: RW-1 = 11.29/11.29; RW-2 = 11.12/11.12; RW-3 = 11.40/11.21; RW-4 = 11.59/11.44; Monitoring Well 10.88/10.85.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 5/22/2015 Time: 8:17 AM Observations by: Steven Stanford
Weather Conditions: Sunny, 60° F, light wind. Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 14.5, steady Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): _____ :Low _____ :High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 82
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 92
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min
Water in Vacuum Lines? No significant water drained from SVE lines.
Compressor Oil Level OK? No, added 0.7 quarts to halfway up the sight window.

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 27.50 Total Fluid Volume in Tank (gal): 306.34 Read from Tank Chart
Water Level in Tank (in): 25.25 Water Volume in tank (gal): 275.64
Oil Volume in Tank (total fluid volume less water volume (gal): 30.70
Pumping time (Read from Controller): **RW-1** 592 :hr 23 :min **RW-3** 520 :hr 22 :min
RW-2 491 :hr 25 :min **RW-4** 531 :hr 57 :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 0.40
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 0.40

Remarks: 0.063 ft of free product observed in monitoring well. Drained 0.25 gal of condensate from the air compressor. The inline compressed air dryer is consuming less air than it did originally and may need replacement.

Contact: S. Stanford, Weaver Consultants Group, LLC
7121 Grape Road

(574) 271-3447 Tel.
(574) 271-3343 Fax.

Project No. 2387-354-04-11

Granger, Indiana 46530

sstanford@wcgrp.com



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 5/15/2015 Time: 10:45 AM Observations by: Alex Huang
Weather Conditions: Partly cloudy, 66° F. Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 16 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): _____ :Low _____ :High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 89
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 90
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min + 2
Water in Vacuum Lines? Approximately 0.1 gallons collected

OIL RECOVERY MEASUREMENTS

		Read from Tank Chart	
Total Fluid Level in Tank (in):	<u>27.25</u>	Total Fluid Volume in Tank (gal):	<u>302.94</u>
Water Level in Tank (in):	<u>25.50</u>	Water Volume in tank (gal):	<u>279.07</u>
		Oil Volume in Tank (total fluid volume less water volume) (gal):	<u>23.87</u>
Pumping time (Read from Controller):			
RW-1	<u>587</u> :hr	<u>44</u> :min	RW-3 <u>515</u> :hr <u>42</u> :min
RW-2	<u>489</u> :hr	<u>5</u> :min	RW-4 <u>527</u> :hr <u>17</u> :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in):	<u>0.00</u>	Free Product in RW-3 (in):	<u>0.25</u>
Free Product in RW-2 (in):	<u>0.00</u>	Free Product in RW-4 (in):	<u>1.00</u>

Remarks: Approximately 0.25 gallon drained from the compressor. The apparent oil/water emulsion in RW-3 remained in evidence, but a phase-separated layer of diesel fuel was present at the top of the fluid column.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 5/8/2015 Time: 12:20 PM Observations by: Alex Huang
Weather Conditions: Partly sunny, 76° F. Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 15 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): _____ :Low 180 :High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 87
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 90
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min + 2
Water in Vacuum Lines? Insignificant condensate collected from lines.

OIL RECOVERY MEASUREMENTS

		Read from Tank Chart	
Total Fluid Level in Tank (in):	<u>26.75</u>	Total Fluid Volume in Tank (gal):	<u>296.14</u>
Water Level in Tank (in):	<u>25.25</u>	Water Volume in tank (gal):	<u>275.64</u>
		Oil Volume in Tank (total fluid volume less water volume) (gal):	<u>20.50</u>
Pumping time (Read from Controller):			
RW-1	<u>583</u> :hr	<u>13</u> :min	RW-3 <u>511</u> :hr <u>12</u> :min
RW-2	<u>486</u> :hr	<u>50</u> :min	RW-4 <u>522</u> :hr <u>47</u> :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in):	<u>0.00</u>	Free Product in RW-3 (in):	<u>0.50</u>
Free Product in RW-2 (in):	<u>0.00</u>	Free Product in RW-4 (in):	<u>0.25</u>

Remarks: Approximately 0.2 gallon drained from the compressor. The apparent oil/water emulsion in RW-3 remained in evidence, but a phase-separated layer of diesel fuel was present at the top of the fluid column.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 5/1/2015 Time: 1:27 PM Observations by: Alex Huang
Weather Conditions: Clear, 63° F. Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 16 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): N If no, was it replaced? Yes
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): 130 :Low 180 :High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 92
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 90
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min + 2
Water in Vacuum Lines? Approximately 0.5 gallons purged from knockout tank.

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 26.50 Total Fluid Volume in Tank (gal): 292.73 Read from Tank Chart
Water Level in Tank (in): 25.00 Water Volume in tank (gal): 272.22
Oil Volume in Tank (total fluid volume less water volume (gal): 20.51

Pumping time (Read from Controller): **RW-1** 578 :hr 33 :min **RW-3** 506 :hr 32 :min
RW-2 484 :hr 30 :min **RW-4** 518 :hr 7 :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 0 - see notes
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 0.50

Remarks: Vacuum blower's filter changed and approximately 0.15 gallon drained from the compressor. The apparent oil/water emulsion remained visible at the top of the fluid column in RW-3.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 4/24/2015 Time: 1:30 PM Observations by: Alex Huang
Weather Conditions: Partly sunny, 58° F. Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 15 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): _____:Low _____:High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 90
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 90
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min + 2
Water in Vacuum Lines? Approximately 0.5 gallons purged from knockout tank.

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 26.25 Total Fluid Volume in Tank (gal): 289.32 Read from Tank Chart
Water Level in Tank (in): 24.50 Water Volume in tank (gal): 265.36
Oil Volume in Tank (total fluid volume less water volume) (gal): 23.96

Pumping time (Read from Controller): **RW-1** 573 :hr 53 :min **RW-3** 501 :hr 52 :min
RW-2 482 :hr 10 :min **RW-4** 513 :hr 27 :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 0 - see notes
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 0.25

Remarks: 0.10 gallon was drained from compressor. The fluid in RW-3 appeared to include an oil-water emulsion not previously
seen. Phase-separated product was not in visual evidence.
seen. Phase-separated product was not in visual evidence.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 4/17/2015 Time: 12:45 PM Observations by: Alex Huang
Weather Conditions: Sunny, 71° F. Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 15 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): _____:Low _____:High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 89
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 90
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min + 2
Water in Vacuum Lines? No significant quantity purged.

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 26.00 Total Fluid Volume in Tank (gal): 285.90 Read from Tank Chart
Water Level in Tank (in): 24.50 Water Volume in tank (gal): 265.36
Oil Volume in Tank (total fluid volume less water volume) (gal): 20.54
Pumping time (Read from Controller): **RW-1** 569 :hr 13 :min **RW-3** 497 :hr 12 :min
RW-2 479 :hr 50 :min **RW-4** 508 :hr 47 :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 1.00
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 0.10

Remarks: 0.15 gallon was drained from compressor. One week after reconditioned skimmer pumps were reinstalled in RW-3 and RW-4, the oil volume in the tank increased slightly and the free product thickness observed in RW-3 and RW-4 was reduced from the prior week.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 4/10/2015 Time: 1:15 PM Observations by: Alex Huang
Weather Conditions: Sunny and windy, 59° F. Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 15 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): _____:Low _____:High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 90
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 90
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min + 2
Water in Vacuum Lines? A small amount (< 0.1 gallon) purged from knockout tank

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 25.50 Total Fluid Volume in Tank (gal): 279.07 Read from Tank Chart
Water Level in Tank (in): 24.25 Water Volume in tank (gal): 261.94
Oil Volume in Tank (total fluid volume less water volume (gal)): 17.13
Pumping time (Read from Controller): **RW-1** 564 :hr 33 :min **RW-3** 492 :hr 31 :min
RW-2 477 :hr 30 :min **RW-4** 504 :hr 6 :min

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 2.00
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 4.00

Remarks: 0.15 gallon was drained from compressor. Reconditioned skimmer pumps were re-installed in RW-3 and RW-4 and both were programmed to activate four times a day alongside RW-1 and RW-2. All four skimmer pumps were adjusted so that the static water level is approximately in the center of the screened interval of each pump.

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Project No. 2387-354-04-11



Weekly Operations and Maintenance Report
Mittal Steel USA
Burns Harbor
Locomotive Shop Diesel Fuel Remediation System

Date: 4/3/2015 Time: 1:00 PM Observations by: Alex Huang
Weather Conditions: Partly cloudy, 50° F. Weaver Consultants Group, LLC

FUNCTIONAL PARAMETERS

Panel Warning Lights Illuminated? (Y/N): N :Full Tank N :Low Vac. N :Low Press. N :Fire Suppression
Blower Operating Normally? (Y/N): Y
Blower Vacuum on Arrival (in H₂O): 16 Blower Vacuum on Departure (in H₂O): 15
Blower Filter OK? (Y/N): Y If no, was it replaced? _____
Air Compressor Operating Normally? (Y/N): Y Observed cycle pressures (psi): 130 :Low 180 :High
Compressor Auto Drain OK? (Y/N): N
Pump Pressure (psi): 87
Shed Exhaust Fan Working Normally? (Y/N): Y Set Point for Operation (°F): 90
Shed Heater Operating Normally? (Y/N): Y Set Point for Operation (°F): Min + 2
Water in Vacuum Lines? Yes, 1 gallon purged from knockout tank

OIL RECOVERY MEASUREMENTS

Total Fluid Level in Tank (in): 25.25 Total Fluid Volume in Tank (gal): 275.64 Read from Tank Chart
Water Level in Tank (in): 24.00 Water Volume in tank (gal): 258.52
Oil Volume in Tank (total fluid volume less water volume (gal): 17.12
Pumping time (Read from Controller): **RW-1** 559 :hr 53 :min **RW-3** 492 :hr 31 :min (inactive)
RW-2 475 :hr 10 :min **RW-4** 504 :hr 6 :min (inactive)

FREE PRODUCT MEASUREMENTS

Free Product in RW-1 (in): 0.00 Free Product in RW-3 (in): 2.50
Free Product in RW-2 (in): 0.00 Free Product in RW-4 (in): 4.00

Remarks: 0.10 gallon was drained from compressor. RW-3 and RW-4 remain inactive, but their skimmer pumps
were sent to the manufacturer for service.

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Project No. 2387-354-04-11

APPENDIX C

Groundwater Sampling Field Sheets and Results

File No:	2387-354-04-11
Facility:	ArcelorMittal Burns Harbor
Address:	250 W. U.S. 12 Burns Harbor, IN
Project Name:	Loco Shop 2Q2015 Report
Date:	5/22/2015

PURGING INFORMATION			
Purge Date	5/22/2015	End Purge	12:00
Water Volume in Casing (gallons)	1.49	Volume purged (liters)	5.5

Well Diameter	<u>2.00</u> (inches)	#1	#2	#3	#4
Stick up	<u>0</u> (feet)	pH (std)	<u>8.10</u>	<u>8.22</u>	<u>8.23</u>
Water Level	<u>10.88</u> (feet)	SC (mS)	<u>.1</u>	<u>.1</u>	<u>0</u>
Total Depth	<u>20.00</u> (feet)	Temp (C)	<u>20.9</u>	<u>20.1</u>	<u>20.2</u>
Height of Water Col.	<u>9.12</u> (feet)	Eh (mV)	<u></u>		
		DO (mg/l)	<u></u>		
Methane	<u></u> (%)				
Oxygen	<u></u> (%)	RPD, #2 and #3		RPD, #3 and #4	
Carbon Dioxide	<u></u> (%)	pH (std)	<u>0.12%</u>		
		SC (uS)	<u>-100.00%</u>		
Notes:		Temp (C)	<u>0.50%</u>		
		Eh (mV)	<u></u>		
		DO (mg/l)	<u></u>		

Sampling Date:	5/22/2015
Sampling Time:	12:00
Sample Appearance/Odor:	Mostly colorless, with slight cloudiness and mild organic odor
Weather Conditions:	Clear, sunny

Comments: _____

Sampler Name (Print): Alex Huang

File No:	2387-354-04-11
Facility:	ArcelorMittal Burns Harbor
Address:	250 W. U.S. 12 Burns Harbor, IN
Project Name:	Loco Shop 2Q2015 Report
Date:	5/22/2015

PURGING INFORMATION			
Purge Date	5/22/2015	End Purge	11:00
Water Volume in Casing (gallons)	5.69	Volume purged (liters)	5.5

Well Diameter	<u>4.00</u> (inches)	#1	#2	#3	#4
Stick up	<u>0</u> (feet)	pH (std)	<u>7.94</u>	<u>7.58</u>	<u>7.61</u>
Water Level	<u>11.29</u> (feet)	SC (mS)	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>
Total Depth	<u>20.00</u> (feet)	Temp (C)	<u>19.9</u>	<u>17.7</u>	<u>18.7</u>
Height of Water Col.	<u>8.71</u> (feet)	Eh (mV)	<u></u>		
		DO (mg/l)	<u></u>		
Methane	<u></u> (%)				
Oxygen	<u></u> (%)	RPD, #2 and #3	RPD, #3 and #4		
Carbon Dioxide	<u></u> (%)	pH (std)	<u>0.40%</u>	<u></u>	
		SC (uS)	<u>0.00%</u>	<u></u>	
Notes:		Temp (C)	<u>5.65%</u>	<u></u>	
		Eh (mV)	<u></u>	<u></u>	
		DO (mg/l)	<u></u>	<u></u>	

Sampling Date:	5/22/2015
Sampling Time:	11:00
Sample Appearance/Odor:	Mostly colorless, with slight cloudiness and mild organic odor
Weather Conditions:	Clear, sunny
Comments:	

Sampler Name (Print): Alex Huang

WEAVER CONSULTANTS GROUP, LLC 7121 Grape Road, Granger, IN 46530 FIELD SURVEY REPORT WATER SAMPLING	File No: <u>2387-354-04-11</u> Facility: <u>ArcelorMittal Burns Harbor</u> Address: <u>250 W. U.S. 12 Burns Harbor, IN</u> Project Name: <u>Loco Shop 2Q2015 Report</u> Date: <u>5/22/2015</u>					
Sample ID: <u>RW-2</u> Sample Source: <u>Remediation/Pumping Well</u> Type of Sample: <u>Groundwater</u>						
Equipment Used: Purging <u>Peristaltic Pump</u> Sampling <u>Peristaltic Pump</u>						
PURGING INFORMATION						
Purge Date <u>5/22/2015</u> End Purge <u>11:30</u> Water Volume in Casing (gallons) <u>5.73</u> Volume purged (liters) <u>5.5</u>						
MEASUREMENTS						
Well Diameter	<u>4.00</u>	(inches)	#1	#2	#3	#4
Stick up	<u>0</u>	(feet)	pH (std) <u>7.76</u>	<u>7.96</u>	<u>7.89</u>	
Water Level	<u>11.22</u>	(feet)	SC (mS) <u>0.2</u>	<u>0.4</u>	<u>0.4</u>	
Total Depth	<u>20.00</u>	(feet)	Temp (C) <u>20.9</u>	<u>20.3</u>	<u>19.8</u>	
Height of Water Col.	<u>8.78</u>	(feet)	Eh (mV) _____			
			DO (mg/l) _____			
Methane	_____	(%)				
Oxygen	_____	(%)	RPD, #2 and #3	RPD, #3 and #4		
Carbon Dioxide	_____	(%)	pH (std) <u>-0.88%</u>	_____		
			SC (uS) <u>0.00%</u>	_____		
Notes:			Temp (C) <u>-2.46%</u>	_____		
			Eh (mV) _____	_____		
			DO (mg/l) _____	_____		
SAMPLE INFORMATION						
Sampling Date:			<u>5/22/2015</u>			
Sampling Time:			<u>11:30</u>			
Sample Appearance/Odor:			<u>Mostly colorless, with slight cloudiness and mild organic odor</u>			
Weather Conditions:			<u>Clear, sunny</u>			
Comments: _____ _____ _____ _____						
Sampler Name (Print): <u>Alex Huang</u>						

Sampler Name (Print): Alex Huang

WEAVER CONSULTANTS GROUP, LLC 7121 Grape Road, Granger, IN 46530 FIELD SURVEY REPORT WATER SAMPLING		File No: 2387-354-04-11 Facility: ArcelorMittal Burns Harbor Address: 250 W. U.S. 12 Burns Harbor, IN Project Name: Loco Shop 2Q2015 Report Date: 5/22/2015			
Sample ID: RW-4		Sample Source: Remediation/Pumping Well			
Type of Sample: Groundwater					
Equipment Used:		Purging Peristaltic Pump Sampling Peristaltic Pump			
PURGING INFORMATION					
Purge Date 5/22/2015		End Purge 13:00			
Water Volume in Casing (gallons) 5.49		Volume purged (liters) 5.5			
MEASUREMENTS					
Well Diameter	4.00 (inches)	#1	#2	#3	#4
Stick up	0 (feet)	pH (std)	7.88	7.86	7.85
Water Level	11.59 (feet)	SC (mS)	0.2	0.1	0.1
Total Depth	20.00 (feet)	Temp (C)	19.8	18.1	18.3
Height of Water Col.	8.41 (feet)	Eh (mV)			
		DO (mg/l)			
Methane	(%)				
Oxygen	(%)	RPD, #2 and #3		RPD, #3 and #4	
Carbon Dioxide	(%)	pH (std)	-0.13%		
		SC (uS)	0.00%		
Notes:		Temp (C)	1.10%		
		Eh (mV)			
		DO (mg/l)			
SAMPLE INFORMATION					
Sampling Date:		5/22/2015			
Sampling Time:		13:00			
Sample Appearance/Odor:		Mostly colorless, with moderate cloudiness and moderate organic odor			
Weather Conditions:		Clear, sunny			
Comments: Sample pumped from well contained a large number of bubbles that took multiple resampling attempts to minimize the headspace in the sampling containers.					
Sampler Name (Print): Alex Huang					



May 29, 2015

Arcelor Mittal USA, Inc.
250 W US Highway 12
Burns Harbor, IN 46304-9745

Work Order No.: 15E1058

Re: Loco Shop Remediation

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 6 sample(s) on 5/22/2015 2:35:00PM for the analyses presented in the following report as Work Order 15E1058.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Robert Crookston, Managing Director, at robert.crookston@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Carey Gadzala
Project Manager

Microbac Laboratories, Inc.

250 West 84th Drive | Merrillville, IN 46410 | 800.536.8379 p | 219.769.8378 p | 219.769.1664 f | www.microbac.com

**WORK ORDER SAMPLE SUMMARY****Date:** *Friday, May 29, 2015***Client:** Arcelor Mittal USA, Inc.**Project:** Loco Shop Remediation**Lab Order:** 15E1058

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
15E1058-01	MW-1		05/22/2015 12:00	5/22/2015 2:35:00PM
15E1058-02	RW-1		05/22/2015 11:00	5/22/2015 2:35:00PM
15E1058-03	RW-2		05/22/2015 11:30	5/22/2015 2:35:00PM
15E1058-04	RW-3		05/22/2015 12:30	5/22/2015 2:35:00PM
15E1058-05	RW-4		05/22/2015 13:00	5/22/2015 2:35:00PM
15E1058-06	Trip Blank		05/22/2015 13:00	5/22/2015 2:35:00PM

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Analytical Results

Date: Friday, May 29, 2015

Client: Arcelor Mittal USA, Inc.
 Client Project: Loco Shop Remediation
 Client Sample ID: MW-1
 Sample Description:
 Matrix: Aqueous

Work Order/ID: 15E1058-01
 Sampled: 05/22/2015 12:00
 Received: 05/22/2015 14:35

Analyses	Certs	AT	Result	RL	Qual	Units	DF	AnalYZed
Semivolatile Organic Compounds				Method: SW-846 8270C		Analyst: ALS		
				Prep Method: SW846 3510		Prep Date/Time: 05/27/2015 11:52		
Benzo[a]anthracene	chmp	A	ND	0.10		µg/L	1	05/29/2015 3:32

LL Polynuclear Aromatic Hydrocarbons by GC/MS				Method: SW-846 8270C		Analyst: ALS		
				Prep Method: SW846 3510		Prep Date/Time: 05/27/2015 11:52		
Acenaphthene	chmp	A	3.4	0.52		µg/L	1	05/27/2015 16:11
Acenaphthylene	chmp	A	0.53	0.52		µg/L	1	05/27/2015 16:11
Anthracene	chmp	A	0.79	0.52		µg/L	1	05/27/2015 16:11
Benzo[a]pyrene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:11
Benzo[b]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:11
Benzo[g,h,i]perylene	chmp	A	ND	0.21		µg/L	1	05/27/2015 16:11
Benzo[k]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:11
Chrysene	chmp	A	ND	0.52		µg/L	1	05/27/2015 16:11
Dibenz[a,h]anthracene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:11
Fluoranthene	chmp	A	ND	0.52		µg/L	1	05/27/2015 16:11
Fluorene	chmp	A	4.3	0.52		µg/L	1	05/27/2015 16:11
Indeno[1,2,3cd]pyrene	chmp	A	0.031	0.021		µg/L	1	05/27/2015 16:11
Naphthalene	chmp	A	27	0.52		µg/L	1	05/27/2015 16:11
Phenanthrene	chmp	A	4.4	0.52		µg/L	1	05/27/2015 16:11
Pyrene	chmp	A	1.9	0.52		µg/L	1	05/27/2015 16:11
Surr: 2-Fluorobiphenyl		S	42.8	10-110		%REC	1	05/27/2015 16:11
Surr: Nitrobenzene-d5		S	59.7	10-110		%REC	1	05/27/2015 16:11
Surr: Terphenyl-d14		S	37.2	16.8-110		%REC	1	05/27/2015 16:11

BTEX				Method: SW-846 8260B		Analyst: jln		
						Prep Date/Time: 05/27/2015 08:52		
Benzene	chmp	A	ND	5.0		µg/L	1	05/27/2015 16:20
Ethylbenzene	chmp	A	130	5.0		µg/L	1	05/27/2015 16:20
m,p-Xylene	chmp	A	260	5.0		µg/L	1	05/27/2015 16:20
o-Xylene	chmp	A	24	5.0		µg/L	1	05/27/2015 16:20
Toluene	chmp	A	ND	5.0		µg/L	1	05/27/2015 16:20
Total Xylenes	chmp	M	280	5.0		µg/L	1	05/27/2015 16:20
Surr: 4-Bromofluorobenzene		S	102	80-120		%REC	1	05/27/2015 16:20

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Analytical Results

Date: Friday, May 29, 2015

Client: Arcelor Mittal USA, Inc.
 Client Project: Loco Shop Remediation
 Client Sample ID: RW-1
 Sample Description:
 Matrix: Aqueous

Work Order/ID: 15E1058-02
 Sampled: 05/22/2015 11:00
 Received: 05/22/2015 14:35

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
Method: SW-846 8270C				Analyst: ALS				
Prep Method: SW846 3510				Prep Date/Time: 05/27/2015 11:52				
Semivolatle Organic Compounds	chmp	A	ND	0.10		µg/L	1	05/29/2015 3:51

Method: SW-846 8270C				Analyst: ALS				
LL Polynuclear Aromatic Hydrocarbons by GC/MS				Prep Method: SW846 3510		Prep Date/Time: 05/27/2015 11:52		
Acenaphthene	chmp	A	1.4	0.51		µg/L	1	05/27/2015 16:30
Acenaphthylene	chmp	A	ND	0.51		µg/L	1	05/27/2015 16:30
Anthracene	chmp	A	ND	0.51		µg/L	1	05/27/2015 16:30
Benzo[a]pyrene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:30
Benzo[b]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:30
Benzo[g,h,i]perylene	chmp	A	ND	0.20		µg/L	1	05/27/2015 16:30
Benzo[k]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:30
Chrysene	chmp	A	ND	0.51		µg/L	1	05/27/2015 16:30
Dibenz[a,h]anthracene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:30
Fluoranthene	chmp	A	ND	0.51		µg/L	1	05/27/2015 16:30
Fluorene	chmp	A	1.2	0.51		µg/L	1	05/27/2015 16:30
Indeno[1,2,3cd]pyrene	chmp	A	ND	0.020		µg/L	1	05/27/2015 16:30
Naphthalene	chmp	A	0.70	0.51		µg/L	1	05/27/2015 16:30
Phenanthrene	chmp	A	1.8	0.51		µg/L	1	05/27/2015 16:30
Pyrene	chmp	A	1.0	0.51		µg/L	1	05/27/2015 16:30
Surr: 2-Fluorobiphenyl		S	39.4	10-110		%REC	1	05/27/2015 16:30
Surr: Nitrobenzene-d5		S	58.5	10-110		%REC	1	05/27/2015 16:30
Surr: Terphenyl-d14		S	21.3	16.8-110		%REC	1	05/27/2015 16:30

Method: SW-846 8260B						Analyst: jln					
BTEX									Prep Date/Time: 05/27/2015 08:52		
Benzene	chmp	A	ND	5.0		µg/L	1	05/27/2015 16:42			
Ethylbenzene	chmp	A	ND	5.0		µg/L	1	05/27/2015 16:42			
m,p-Xylene	chmp	A	ND	5.0		µg/L	1	05/27/2015 16:42			
o-Xylene	chmp	A	ND	5.0		µg/L	1	05/27/2015 16:42			
Toluene	chmp	A	ND	5.0		µg/L	1	05/27/2015 16:42			
Total Xylenes	chmp	M	ND	5.0		µg/L	1	05/27/2015 16:42			
Surr: 4-Bromofluorobenzene		S	99.2	80-120		%REC	1	05/27/2015 16:42			

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Analytical Results

Date: Friday, May 29, 2015

Client: Arcelor Mittal USA, Inc.
 Client Project: Loco Shop Remediation
 Client Sample ID: RW-2
 Sample Description:
 Matrix: Aqueous

Work Order/ID: 15E1058-03
 Sampled: 05/22/2015 11:30
 Received: 05/22/2015 14:35

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
Method: SW-846 8270C				Analyst: ALS				
Prep Method: SW846 3510				Prep Date/Time: 05/27/2015 11:52				
Semivolatle Organic Compounds	chmp	A	ND	0.10		µg/L	1	05/29/2015 4:10
Benzo[a]anthracene								

Method: SW-846 8270C					Analyst: ALS			
LL Polynuclear Aromatic Hydrocarbons by GC/MS			Prep Method: SW846 3510		Prep Date/Time: 05/27/2015 11:52			
Acenaphthene	chmp	A	ND	0.52		µg/L	1	05/27/2015 16:50
Acenaphthylene	chmp	A	ND	0.52		µg/L	1	05/27/2015 16:50
Anthracene	chmp	A	ND	0.52		µg/L	1	05/27/2015 16:50
Benzo[a]pyrene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:50
Benzo[b]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:50
Benzo[g,h,i]perylene	chmp	A	ND	0.21		µg/L	1	05/27/2015 16:50
Benzo[k]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:50
Chrysene	chmp	A	ND	0.52		µg/L	1	05/27/2015 16:50
Dibenz[a,h]anthracene	chmp	A	ND	0.10		µg/L	1	05/27/2015 16:50
Fluoranthene	chmp	A	ND	0.52		µg/L	1	05/27/2015 16:50
Fluorene	chmp	A	0.52	0.52		µg/L	1	05/27/2015 16:50
Indeno[1,2,3cd]pyrene	chmp	A	ND	0.021		µg/L	1	05/27/2015 16:50
Naphthalene	chmp	A	0.52	0.52		µg/L	1	05/27/2015 16:50
Phenanthrene	chmp	A	ND	0.52		µg/L	1	05/27/2015 16:50
Pyrene	chmp	A	0.86	0.52		µg/L	1	05/27/2015 16:50
Surr: 2-Fluorobiphenyl		S	33.2	10-110		%REC	1	05/27/2015 16:50
Surr: Nitrobenzene-d5		S	49.0	10-110		%REC	1	05/27/2015 16:50
Surr: Terphenyl-d14		S	22.9	16.8-110		%REC	1	05/27/2015 16:50

Method: SW-846 8260B						Analyst: jln		
BTEX								
Prep Date/Time: 05/27/2015 08:52								
Benzene	chmp	A	ND	5.0	µg/L	1	05/27/2015 17:03	
Ethylbenzene	chmp	A	ND	5.0	µg/L	1	05/27/2015 17:03	
m,p-Xylene	chmp	A	ND	5.0	µg/L	1	05/27/2015 17:03	
o-Xylene	chmp	A	ND	5.0	µg/L	1	05/27/2015 17:03	
Toluene	chmp	A	ND	5.0	µg/L	1	05/27/2015 17:03	
Total Xylenes	chmp	M	7.4	5.0	µg/L	1	05/27/2015 17:03	
Surr: 4-Bromofluorobenzene		S	99.6	80-120	%REC	1	05/27/2015 17:03	

Analytical Results

Date: Friday, May 29, 2015

Client: Arcelor Mittal USA, Inc.
 Client Project: Loco Shop Remediation
 Client Sample ID: RW-3
 Sample Description:
 Matrix: Aqueous

Work Order/ID: 15E1058-04
 Sampled: 05/22/2015 12:30
 Received: 05/22/2015 14:35

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
Method: SW-846 8270C				Analyst: ALS				
Prep Method: SW846 3510				Prep Date/Time: 05/27/2015 11:52				
Semivolatle Organic Compounds								
Benzo[a]anthracene	chmp	A	ND	0.10		µg/L	1	05/29/2015 4:29

Method: SW-846 8270C				Analyst: ALS				
LL Polynuclear Aromatic Hydrocarbons by GC/MS				Prep Method: SW846 3510		Prep Date/Time: 05/27/2015 11:52		
Acenaphthene	chmp	A	2.0	0.52		µg/L	1	05/27/2015 17:09
Acenaphthylene	chmp	A	ND	0.52		µg/L	1	05/27/2015 17:09
Anthracene	chmp	A	ND	0.52		µg/L	1	05/27/2015 17:09
Benzo[a]pyrene	chmp	A	ND	0.10		µg/L	1	05/27/2015 17:09
Benzo[b]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 17:09
Benzo[g,h,i]perylene	chmp	A	ND	0.21		µg/L	1	05/27/2015 17:09
Benzo[k]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 17:09
Chrysene	chmp	A	ND	0.52		µg/L	1	05/27/2015 17:09
Dibenz[a,h]anthracene	chmp	A	ND	0.10		µg/L	1	05/27/2015 17:09
Fluoranthene	chmp	A	ND	0.52		µg/L	1	05/27/2015 17:09
Fluorene	chmp	A	2.8	0.52		µg/L	1	05/27/2015 17:09
Indeno[1,2,3cd]pyrene	chmp	A	ND	0.021		µg/L	1	05/27/2015 17:09
Naphthalene	chmp	A	16	0.52		µg/L	1	05/27/2015 17:09
Phenanthrene	chmp	A	3.3	0.52		µg/L	1	05/27/2015 17:09
Pyrene	chmp	A	0.75	0.52		µg/L	1	05/27/2015 17:09
Surr: 2-Fluorobiphenyl		S	45.7	10-110		%REC	1	05/27/2015 17:09
Surr: Nitrobenzene-d5		S	62.4	10-110		%REC	1	05/27/2015 17:09
Surr: Terphenyl-d14		S	20.4	16.8-110		%REC	1	05/27/2015 17:09

Method: SW-846 8260B						Analyst: jln		
BTEX								
Prep Date/Time: 05/27/2015 08:52								
Benzene	chmp	A	ND	5.0		µg/L	1	05/27/2015 17:25
Ethylbenzene	chmp	A	39		5.0	µg/L	1	05/27/2015 17:25
m,p-Xylene	chmp	A	55		5.0	µg/L	1	05/27/2015 17:25
o-Xylene	chmp	A	150		5.0	µg/L	1	05/27/2015 17:25
Toluene	chmp	A	ND	5.0		µg/L	1	05/27/2015 17:25
Total Xylenes	chmp	M	210		5.0	µg/L	1	05/27/2015 17:25
Surr: 4-Bromofluorobenzene		S	103	80-120		%REC	1	05/27/2015 17:25

Analytical Results

Date: Friday, May 29, 2015

Client: Arcelor Mittal USA, Inc.
 Client Project: Loco Shop Remediation
 Client Sample ID: RW-4
 Sample Description:
 Matrix: Aqueous

Work Order/ID: 15E1058-05
 Sampled: 05/22/2015 13:00
 Received: 05/22/2015 14:35

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
Semivolatile Organic Compounds				Method: SW-846 8270C		Analyst: ALS		
				Prep Method: SW846 3510		Prep Date/Time: 05/27/2015 11:52		
Benzo[a]anthracene	chmp	A	ND	0.10		µg/L	1	05/29/2015 4:47

LL Polynuclear Aromatic Hydrocarbons by GC/MS				Method: SW-846 8270C		Analyst: ALS		
				Prep Method: SW846 3510		Prep Date/Time: 05/27/2015 11:52		
Acenaphthene	chmp	A	3.2	0.52		µg/L	1	05/27/2015 17:29
Acenaphthylene	chmp	A	0.64	0.52		µg/L	1	05/27/2015 17:29
Anthracene	chmp	A	0.84	0.52		µg/L	1	05/27/2015 17:29
Benzo[a]pyrene	chmp	A	ND	0.10		µg/L	1	05/27/2015 17:29
Benzo[b]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 17:29
Benzo[g,h,i]perylene	chmp	A	ND	0.21		µg/L	1	05/27/2015 17:29
Benzo[k]fluoranthene	chmp	A	ND	0.10		µg/L	1	05/27/2015 17:29
Chrysene	chmp	A	ND	0.52		µg/L	1	05/27/2015 17:29
Dibenz[a,h]anthracene	chmp	A	ND	0.10		µg/L	1	05/27/2015 17:29
Fluoranthene	chmp	A	ND	0.52		µg/L	1	05/27/2015 17:29
Fluorene	chmp	A	5.3	0.52		µg/L	1	05/27/2015 17:29
Indeno[1,2,3cd]pyrene	chmp	A	ND	0.021		µg/L	1	05/27/2015 17:29
Naphthalene	chmp	A	20	0.52		µg/L	1	05/27/2015 17:29
Phenanthrene	chmp	A	5.8	0.52		µg/L	1	05/27/2015 17:29
Pyrene	chmp	A	2.0	0.52		µg/L	1	05/27/2015 17:29
Surr: 2-Fluorobiphenyl		S	48.9	10-110		%REC	1	05/27/2015 17:29
Surr: Nitrobenzene-d5		S	63.9	10-110		%REC	1	05/27/2015 17:29
Surr: Terphenyl-d14		S	16.2	16.8-110	S	%REC	1	05/27/2015 17:29

BTEX				Method: SW-846 8260B		Analyst: jln		
						Prep Date/Time: 05/27/2015 08:52		
Benzene	chmp	A	8.8	5.0		µg/L	1	05/27/2015 17:46
Ethylbenzene	chmp	A	49	5.0		µg/L	1	05/27/2015 17:46
m,p-Xylene	chmp	A	95	5.0		µg/L	1	05/27/2015 17:46
o-Xylene	chmp	A	57	5.0		µg/L	1	05/27/2015 17:46
Toluene	chmp	A	ND	5.0		µg/L	1	05/27/2015 17:46
Total Xylenes	chmp	M	150	5.0		µg/L	1	05/27/2015 17:46
Surr: 4-Bromofluorobenzene		S	102	80-120		%REC	1	05/27/2015 17:46

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Analytical Results

Date: Friday, May 29, 2015

Client: Arcelor Mittal USA, Inc.
 Client Project: Loco Shop Remediation
 Client Sample ID: Trip Blank
 Sample Description:
 Matrix: Aqueous

Work Order/ID: 15E1058-06
 Sampled: 05/22/2015 13:00
 Received: 05/22/2015 14:35

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
				Method: SW-846 8260B		Analyst: jln		
BTEX				Prep Date/Time: 05/27/2015 08:52				
Benzene	chmp	A	ND	5.0		µg/L	1	05/27/2015 18:08
Ethylbenzene	chmp	A	ND	5.0		µg/L	1	05/27/2015 18:08
m,p-Xylene	chmp	A	ND	5.0		µg/L	1	05/27/2015 18:08
o-Xylene	chmp	A	ND	5.0		µg/L	1	05/27/2015 18:08
Toluene	chmp	A	ND	5.0		µg/L	1	05/27/2015 18:08
Total Xylenes	chmp	M	ND	5.0		µg/L	1	05/27/2015 18:08
Surr: 4-Bromofluorobenzene		S	99.2	80-120		%REC	1	05/27/2015 18:08

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FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

B = Detected in the associated method Blank at a concentration above the routine RL
 b = Detected in the associated method Blank at a concentration greater than 2.2 times the MDL
 b* = Detected in the associated method Blank at a concentration greater than half the RL
 CFU = Colony forming units
 D = Dilution performed on sample
 DF = Dilution Factor
 g = Gram
 E = Value above quantitation range
 H = Analyte was prepared and/or analyzed outside of the analytical method holding time
 I = Matrix Interference
 J = Analyte concentration detected between RL and MDL (Metals / Organics)
 LOD = Limit of Detection
 LOQ = Limit of Quantitation
 m3 = Meters cubed
 MDL = Method Detection Limit
 mg/Kg = Milligrams per Kilogram (ppm)
 mg/L = Milligrams per Liter (ppm)
 NA = Not Analyzed
 ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)
 NR = Not Recovered
 R = RPD outside accepted recovery limits
 RL = Reporting Limit
 S = Spike recovery outside recovery limits
 Surr = Surrogate
 U = Undetected
 > = Greater than
 < = Less than
 % = Percent
 * = Result exceeds project specific limits

ANALYTE TYPES: (AT)

A,B = Target Analyte
 I = Internal Standard
 M = Summation Analyte
 S = Surrogate
 T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank	ICSA = Interference Check Standard "A"
DUP = Method Duplicate	ICSAB = Interference Check Standard "AB"
BS = Method Blank Spike	BSD = Method Blank Spike Duplicate
MS = Matrix Spike	MSD = Matrix Spike Duplicate
ICB = Initial Calibration Blank	ICV = Initial Calibration Verification
CCB = Continuing Calibration Blank	CCV = Continuing Calibration Verification
CRL = Client Required Reporting Limit	OPR = Ongoing Precision and Recovery Standard
PDS = Post Digestion Spike	SD = Serial Dilution
QCS = Quality Control Standard	

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

- ^a The American Association for Laboratory Accreditation [A2LA] for Biological Testing, ISO/IEC 17025 (Certificate# 3045.01)
- ^b The American Association for Laboratory Accreditation [A2LA] for Environmental Department of Defense Testing, ISO/IEC 17025 (Certificate# 3045.02)
- ^c Illinois EPA for the analysis of wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #200064)
- ^d Illinois DOPH for the microbiological analysis of drinking water (registry #1755266)
- ^e Indiana DEM approved support laboratory for solid waste and wastewater analyses
- ^f Indiana State Board of Animal Health for microbiological analysis of dairy containers (18137)
- ^f Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)
- ^g Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)
- ^h Kansas DPHE for the analysis of drinking water, wastewater, and solid hazardous waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Certificate No. E-10397)
- ⁱ Kentucky DEP for the analysis of samples applicable to the Underground Storage Tank program (lab #75)
- ^j Kentucky EEC Wastewater Laboratory Certification Program for the analysis of wastewater (lab #90147)
- ^k New York SDOH in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Lab#12006; accreditation #49179)
- ^j New York SDOH in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (Lab# 12006; accreditation #49386)
- ^m North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations (certificate #597)
- ⁿ Pennsylvania Department of Environmental Protection [NELAP] (Lab# 68-04863)
- ⁻ United States Department of Agriculture Animal and Plant Health Inspection Service Permit To Receive Soil (Permit #P330-12-00174))
- ^o Washington State Department of Ecology in accordance to Ch. 173-50 WAC (lab #C992)
- ^p Wisconsin Department of Natural Resources for the chemical analysis of wastewater and solid waste (lab #998036710)
- ^q Center for Disease Control [CDC] ELITE Proficiency Program member

Microbac Laboratories, Inc.



COOLER INSPECTION

Client Name: Arcelor Mittal USA, Inc.

Work Order Number: 15E1058

Checklist completed by: 5/22/2015 2:49:00PM Chase Freeland

Carrier Name:

Date: Friday, May 29, 2015

Date/Time Received: 05/22/2015 14:35

Received by: Chase Freeland

Reviewed by: 5/22/2015 CAG

Cooler ID: Default Cooler

Container/Temp Blank Temperature: 16.2° C

After-Hour Arrival?

Yes ☐ No ☒

Shipping container/cooler in good condition?

Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample containers?

Yes ☐ No ☐ Not Present ☒

COC present?

Yes ☒ No ☐

COC included sufficient client identification?

Yes ☒ No ☐

COC included sufficient sample collector information?

Yes ☒ No ☐

COC included a sample description?

Yes ☒ No ☐

COC agrees with sample labels?

Yes ☒ No ☐

COC identified the appropriate matrix?

Yes ☒ No ☐

COC included date of collection?

Yes ☒ No ☐

COC included time of collection?

Yes ☒ No ☐

COC identified the appropriate number of containers?

Yes ☒ No ☐

Samples in proper container/bottle?

Yes ☒ No ☐

Sample containers intact?

Yes ☒ No ☐

Sufficient sample volume for indicated test?

Yes ☒ No ☐

All samples received within holding time?

Yes ☒ No ☐

If the samples are preserved, are the preservatives identified?

Yes ☒ No ☐

If No, adjusted by? _____

COC included the requested analyses?

Yes ☒ No ☐

COC signed when relinquished and received?

Yes ☒ No ☐

Samples received on ice?

Yes ☒ No ☐

Samples properly preserved?

Yes ☒ No ☐

Voa vials for aqueous samples have zero headspace?

Yes ☐ No ☒ No VOA vials submitted ☐

Cooler Comments:

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.

Sample ID	Client Sample ID	Comments
15E1058-01	MW-1	
15E1058-02	RW-1	
15E1058-03	RW-2	
15E1058-04	RW-3	
15E1058-05	RW-4	
15E1058-06	Trip Blank	

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